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Domeſtic Medicine:

OR, A

TREATISE

ON

THE PREVENTION AND CURE

OF

DISEASES,

BY REGIMEN AND SIMPLE MEDICINES.

WITH

AN APPENDIX,

CONTAINING A DISPENSATORY FOR THE USE OF PRIVATE PRACTITIONERS.

BY WILLIAM BUCHAN, M. D.

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS, EDINBURGH:

REVISED AND ADAPTED TO THE

Diſeaſes and Climate of the United States of America,

BY SAMUEL POWEL GRIFFITTS, M. D.

LATE PROFESSOR OF MATERIA MEDICA IN THE UNIVERSITY OF PENNSYLVANIA.

A New Edition.

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Preface of the American Editor.

IT is not neceſſary to enter into a detail of my reaſons for the preſent publication. Doctor Buchan's *Domeſtic Medicine* has long ſince had a place in moſt families; but, although it is one of the moſt ſenſible and judicious performances of the kind that has hitherto appeared, yet it is evidently not adapted to the climate and diſeaſes of the United States of America. I thought this deficiency might be remedied, and accordingly undertook the taſk; and although the alterations and additions have been very numerous, yet I can truly ſay, none have been made with any other view than that of rendering the book more ſerviceable. As to medical reputation, I am well aware this is not the way to obtain it; but if I have ſucceeded in making this valuable and popular work more intelligible, and conſequently more uſeful, to my fellow-citizens; I ſhall be ſufficiently rewarded.

SAMUEL POWEL GRIFFITTS.

PHILADELPHIA,
May, 18*th*, 1795.

PREFACE,

(By Dr BUCHAN.)

WHEN I first signified my intention of publishing the following sheets, I was told by my friends it would draw on me the resentment of the whole faculty. As I never could entertain such an unfavourable idea, I was resolved to make the experiment, which indeed came out pretty much as might have been expected. Many whose learning and liberality of sentiments do honour to medicine, received the book in a manner which at once shewed their indulgence, and the falsity of the opinion *that every physician wishes to conceal his art;* while the more selfish and narrow-minded, generally the most numerous in every profession, have not failed to persecute both the book and its author.

The reception, however, which this work has met with from the public merits my most grateful acknowledgments. As the best way of expressing these, I have endeavoured to render it more generally useful, by enlarging the *prophylaxis*, or that part which treats of preventing diseases; and by adding many articles which had been entirely omitted in the former impressions. It is needless to enumerate these additions; I shall only say, that I hope they will be found real improvements.

The obſervations relative to Nurſing and the Management of Children, were chiefly ſuggeſted by an extenſive practice among infants, in a large branch of the Foundling Hoſpital, where I had an opportunity not only of treating the diſeaſes incident to childhood, but likewiſe of trying different plans of nurſing, and obſerving their effects. Whenever I had it in my power to place the children under the care of proper nurſes, to inſtruct theſe nurſes in their duty, and to be ſatisfied that they performed it, very few of them died; but when, from diſtance of place, and other unavoidable circumſtances, the children were left to the ſole care of mercenary nurſes, without any perſon to inſtruct or ſuperintend them, ſcarce any of them lived.

This was ſo apparent, as with me to amount to a proof of the following melancholy fact: *That almoſt one half of the human ſpecies periſh in infancy, by improper management or neglect.* This reflection has made me often wiſh to be the happy inſtrument of alleviating the miſeries of thoſe ſuffering innocents, or of reſcuing them from an untimely grave. No one, who has not had an opportunity of obſerving them, can imagine what abſurd and ridiculous practices ſtill prevail in the nurſing and management of infants, and what numbers of lives are by that means loſt to ſociety. As theſe practices are chiefly owing to ignorance, it is to be hoped, that when nurſes are better informed, their conduct will be more proper.

The application of medicine to the various occupations of life has been in general the reſult of obſervation. An extenſive practice for ſeveral years, in one of the largeſt manufacturing towns in England, afforded me ſufficient opportunities of obſerving the injuries which thoſe uſeful people ſuſtain from their particular employments, and likewiſe of

trying various methods of obviating ſuch injuries. The ſucceſs which attended theſe trials was ſufficient to encourage this attempt, which I hope will be of uſe to thoſe who are under the neceſſity of earning their bread by ſuch employments as are unfavourable to health.

I do not mean to intimidate men, far leſs to inſinuate that even thoſe arts, the practice of which is attended with ſome degree of danger, ſhould not be carried on; but to guard the leſs cautious and unwary againſt thoſe dangers wich they have it in their power to avoid, and which they often, through mere ignorance, incur. As every occupation in life diſpoſes thoſe who follow it to ſome particular diſeaſes more than to others, it is certainly of importance to know theſe, in order that people may be upon their guard againſt them. It is always better to be warned of the approach of an enemy, than to be ſurpriſed by him, eſpecially where there is a poſſibility of avoiding the danger.

The obſervations concerning Diet, Air, Exerciſe, &c. are of a more general nature, and have not eſcaped the attention of phyſicians in any age. They are ſubjects of too great importance, however, to be paſſed over in an attempt of this kind, and can never be ſufficiently recommended. The man who pays a proper attention to theſe, will ſeldom need the phyſician; and he who does not, will ſeldom enjoy health, let him employ as many phyſicians as he pleaſes.

Though we have endeavoured to point out the cauſes of diſeaſes, and to put people upon their guard againſt them, yet it muſt be acknowledged, that they are often of ſuch a nature as to admit of being removed only by the diligence and activity of the public magiſtrate. We are ſorry, indeed, to obſerve, that the power of the magiſtrate is ſel-

dom exerted in this country for the preſervation of health. The importance of a proper medical police is either not underſtood, or little regarded. Many things highly injurious to the public health are daily practiſed with impunity, while others, abſolutely neceſſary for its preſervation, are entirely neglected.

Some of the public means of preſerving health are mentioned in the general prophylaxis, as the inſpection of proviſions, widening the ſtreets of great towns, keeping them clean, ſupplying the inhabitants with wholeſome water, &c.; but they are paſſed over in a very curſory manner. A proper attention to theſe would have ſwelled this volume to too large a ſize; I have therefore reſerved them for the ſubject of a future publication.

In the treatment of diſeaſes, I have been peculiarly attentive to regimen. The generality of people lay too much ſtreſs upon Medicine, and truſt too little to their own endeavours. It is always in the power of the patient, or of thoſe about him to do as much towards his recovery as can be effected by the phyſician. By not attending to this the deſigns of Medicine are often fruſtrated; and the patient, by purſuing a wrong plan of regimen, not only defeats the Doctor's endeavours, but renders them dangerous. I have often known patients killed by an error in regimen, when they were uſing very proper medicines. It will be ſaid, the phyſician always orders the regimen when he preſcribes a medicine. I wiſh it were ſo, both for the honour of the Faculty and the ſafety of their patients: but phyſicians, as well as other people, are too little attentive to this matter.

Though many reckon it doubtful whether phyſic is more beneficial or hurtful to mankind, yet all allow the neceſſity and importance of a proper regimen

men in diſeaſes. Indeed the very appetites of the ſick prove its propriety. No man in his ſenſes ever imagined that a perſon in a fever, for example, could eat, drink, or conduct himſelf in the ſame manner as one in perfect health This part of medicine, therefore, is evidently founded in Nature, and is every way conſiſtent with reaſon and common ſenſe. Had men been more attentive to it, and leſs ſolicitous in hunting after ſecret remedies, Medicine had never become an object of ridicule.

This ſeems to have been the firſt idea of Medicine. The ancient phyſicians acted chiefly in the capacity of nurſes. They went very little beyond aliment in their preſcriptions; and even this they generally adminiſtered themſelves, attending the ſick for that purpoſe through the whole courſe of the diſeaſe; which gave them an opportunity not only of marking the changes of diſeaſes with great accuracy, but likewiſe of obſerving the effects of their different applications, and adapting them to the ſymptons.

The learned Dr Arbuthnot aſſerts, that by a proper attention to thoſe things which are almoſt within the reach of every body, more good and leſs miſchief will be done in acute diſeaſes, than by medicines improperly and unſeaſonably adminiſtered; and that great cures may be effected in chronic diſtempers, by a proper regimen of the diet only. So entirely do the Doctor's ſentiments and mine agree, that I would adviſe every perſon, ignorant of phyſic, to confine his practice ſolely to diet, and the other parts of regimen; by which means he may often do much good, and can ſeldom do any hurt.

This ſeems alſo to have been the opinion of the ingenious Dr Huxham, who obſerves, that we often ſeek from Art what all-bountiful Nature moſt readily, and as effectually, offers us, had we diligence

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and ſagacity enough to obſerve and make uſe of it; that the *dietetic* part of Medicine is not ſo much ſtudied as it ought to be; and that, though leſs pompous, yet it is the moſt natural method of curing diſeaſes.

To render the book more generally uſeful, however, as well as more acceptable to the intelligent part of mankind, I have in moſt diſeaſes, beſides regimen, recommended ſome of the moſt ſimple and approved forms of medicine, and added ſuch cautions and directions as ſeemed neceſſary for their ſafe adminiſtration. It would no doubt have been more acceptable to many, had it abounded with pompous preſcriptions, and promiſed great cures in conſequence of their uſe; but this was not my plan; I think the adminiſtration of medicines always doubtful, and often dangerous, and would much rather teach men how to avoid the neceſſity of uſing them, than how they ſhould be uſed.

Several medicines, and thoſe of conſiderable efficacy, may be adminiſtered with great freedom and ſafety. Phyſicians generally trifle a long time with medicines before they learn their proper uſe. Many peaſants at preſent know better how to uſe ſome of the moſt important articles in the *materia medica*, than phyſicians did a century ago; and doubtleſs the ſame obſervation will hold with regard to others ſome time hence. Wherever I was convinced that medicine might be uſed with ſafety, or where the cure depended chiefly upon it, I have taken care to recommend it; but where it was either highly dangerous, or not very neceſſary, it is omitted.

I have not troubled the reader with an uſeleſs parade of quotations from different authors, but have in general adopted their obſervations where my own were either defective, or totally wanting. Thoſe to whom I am moſt obliged are, Ramizini, Arbuthnot,

Arbuthnot, and Tiſſot; the laſt of which, in his *Avis au Peuple*, comes the neareſt to my views of any author that I have ſeen. Had the Doctor's plan been as complete as the execution is maſterly, we ſhould have had no occaſion for any new treatiſe of this kind ſoon; but by confining himſelf to the acute diſeaſes, he has in my opinion omitted the moſt uſeful part of his ſubject. People in acute diſeaſes may ſometimes be their own phyſicians; but in the chronic, the cure muſt ever depend chiefly upon the patient's own endeavours. The Doctor has alſo paſſed over the *Prophylaxis*, or preventative part of Medicine, very ſlightly, though it is certainly of the greateſt importance in ſuch a work. He had no doubt his reaſons for ſo doing, and I am ſo far from finding fault with him, that I think his performance does great honour both to his head and to his heart.

Several other foreign phyſicians of eminence have written on nearly the ſame plan with Tiſſot, as the Baron Van Swieten, phyſician to their Imperial Majeſties, M. Roſen, firſt phyſician of the kingdom of Sweden, &c.; but theſe gentlemen's productions have never come to my hand. I cannot help wiſhing, however, that ſome of our diſtinguiſhed countrymen would follow their example. There ſtill remains much to be done on this ſubject, and it does not appear to me how any man could better employ his time or talents, than in eradicating hurtful prejudices, and diffuſing uſeful knowledge among the people.

I know ſome of the Faculty diſapprove of every attempt of this nature, imagining that it muſt totally deſtroy their influence. But this notion appears to me to be as abſurd as it is illiberal. People in diſtreſs will always apply for relief to men of ſuperior

rior abilities, when they have it in their power; and they will do this with far greater confidence and readineſs when they believe that medicine is a rational ſcience, than when they take it to be only a matter of mere conjecture.

Though I have endeavoured to render this Treatiſe plain and uſeful, yet I found it impoſſible to avoid ſome terms of art; but thoſe are in general either explained, or are ſuch as moſt people underſtand. In ſhort, I have endeavoured to conform my ſtyle to the capacities of mankind in general; and, if my readers do not flatter either themſelves or me, with ſome degree of ſucceſs. On a medical ſubject, this is not ſo eaſy a matter as ſome may imagine. To make a ſhew of learning is eaſier than to write plain ſenſe, eſpecially in a ſcience which has been kept at ſuch a diſtance from common obſervation. It would however be no difficult matter to prove, that every thing valuable in the practical part of Medicine is within the reach of common abilities.

It would be ungenerous not to expreſs my warmeſt acknowledgments to thoſe gentlemen who have endeavoured to extend the uſefulneſs of this Performance, by tranſlating it into the language of their reſpective countries. Moſt of them have not only given elegant tranſlations of the Book, but have alſo enriched it with many uſeful obſervations; by which it is rendered more complete, and better adapted to the climate and the conſtitutions of their countrymen. To the learned Dr Duplanil of Paris, phyſician to the Count d'Artois, I lie under particular obligations; as this gentleman has not only conſiderably enlarged my Treatiſe, but, by his very ingenious and uſeful notes, has rendered it ſo popular on the Continent, as to occaſion its being tranſlated into all the languages of modern Europe.

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I have only to add, that the book has not more exceeded my expectations in its ſucceſs, than in the effects it has produced. Some of the moſt pernicious practices, with regard to the treatment of the ſick have already given place to a more rational conduct; and many of the moſt hurtful prejudices, which ſeemed to be quite inſurmountable, have in a great meaſure yielded to better information. Of this a ſtronger inſtance cannot be given than in the inoculation of the ſmall-pox. Few mothers, ſome years ago, would ſubmit to have their children inoculated, even by the hand of a phyſician; yet nothing is more certain, than that of late many of them have performed this operation with their own hands; and as their ſucceſs has been equal to that of the moſt dignified inoculators, there is little reaſon to doubt that the practice will become general. Whenever this ſhall be the caſe, more lives will be ſaved by inoculation alone, than are at preſent by all the endeavours of the Faculty.

INTRODUCTION.

THE improvements in Medicine, ſince the revival of learning, have by no means kept pace with thoſe of the other arts. The reaſon is obvious. Medicine has been ſtudied by few, except thoſe who intended to live by it as a trade. Such, either from a miſtaken zeal for the honour of Medicine, or to raiſe their own importance, have endeavoured to diſguiſe and conceal the art. Medical authors have too generally written in a foreign language; and thoſe who were unequal to this taſk, have even valued themſelves upon couching, at leaſt, their preſcriptions, in terms and characters unintelligible to the reſt of mankind.

The contentions of the clergy, which happened ſoon after the reſtoration of learning, engaged the attention of mankind, and paved the way for that freedom of thought and inquiry, which has ſince prevailed in moſt parts of Europe with regard to religious matters. Every man took a ſide in thoſe diſputes; and every gentleman, that he might diſtinguiſh himſelf on one ſide or other, was inſtructed in Divinity. This taught people to think and reaſon for themſelves in matters of religion, and at laſt, in a degree, deſtroyed that complete and abſolute dominion which the clergy had obtained over the minds of men.

The ſtudy of Law has likewiſe, in moſt civilized nations, been juſtly deemed a neceſſary part of education. Every man ought certainly to know at leaſt the laws of his own country; and, if he were alſo acquainted

acquainted with thoſe of others, it might be more than barely an ornament to him.

The different branches of Philoſophy have alſo of late been very univerſally ſtudied by all who pretended to a liberal education. The advantages of this are manifeſt. It frees the mind from prejudice and ſuperſtition; fits it for the inveſtigation of truth; induces habits of reaſoning and judging properly; opens an inexhauſtible ſource of entertainment; paves the way to the improvement of arts and agriculture; and qualifies men for acting with propriety in the moſt important ſtations of life.

Natural Hiſtory is likewiſe become an object of general attention; and it well deſerves to be ſo. It leads to diſcoveries of the greateſt importance. Indeed agriculture, the moſt uſeful of all arts, is only a branch of Natural Hiſtory, and can never arrive at a high degree of improvement where the ſtudy of that ſcience is neglected.

Medicine however has not, as far as I know, in any country, been reckoned a neceſſary part of education. But ſurely no ſufficient reaſon can be aſſigned for this omiſſion. No ſcience lays open a more extenſive field of uſeful knowledge, or affords more ample entertainment to an inquiſitive mind. Anatomy, Botany, Chemiſtry, and the *Materia Medica*, are all branches of Natural Hiſtory, and are fraught with ſuch amuſement and utility, that the man who entirely neglects them has but a ſorry claim either to taſte or learning. If a man has a turn for obſervation, ſays an excellent and ſenſible writer*, ſurely the natural hiſtory of his own ſpecies is a more intereſting ſubject, and preſents a more ample field for the exertion of genius, than the natural hiſtory of ſpiders and cockle-ſhells.

* Obſervations on the Duties and Offices of a Phyſician.

We do not mean that every man ſhould become a phyſician. This would be an attempt as ridiculous as it is impoſſible. All we plead for is, that men of ſenſe and learning ſhould be ſo far acquainted with the general principles of Medicine, as to be in a condition to derive from it ſome of thoſe advantages with which it is fraught; and at the ſame time to guard themſelves againſt the deſtructive influences of Ignorance, Superſtition, and Quackery.

As matters ſtand at preſent, it is eaſier to cheat a man out of his life than of a ſhilling, and almoſt impoſſible either to detect or puniſh the offender. Notwithſtanding this, people ſtill ſhut their eyes, and take every thing upon truſt that is adminiſtered by any Pretender to Medicine, without daring to aſk him a reaſon for any part of his conduct. Implicit faith, every where elſe the object of ridicule, is ſtill ſacred here. Many of the faculty are no doubt worthy of all the confidence that can be repoſed in them; but as this can never be the character of every individual in any profeſſion, it would certainly be for the ſafety, as well as the honor of mankind, to have ſome check upon the conduct of thoſe to whom they entruſt ſo valuable a treaſure as health.

Medicine, however, needs only to be better known, in order to ſecure the general eſteem of mankind. Its precepts are ſuch as every wiſe man would chuſe to obſerve, and it forbids nothing but what is incompatible with true happineſs.

Diſguiſing Medicine not only retards its improvement as a ſcience, but expoſes the profeſſion to ridicule, and is injurious to the true intereſts of ſociety. An art founded on obſervation never can arrive at any high degree of improvement, while it is confined to a few who make a trade of it. The united obſervations of all the ingenious and ſenſible part of mankind, would do more in a few years towards the

improvement of Medicine, than thoſe of the Faculty alone in a great many. Any man can tell when a medicine gives him eaſe as well as a phyſician; and if he only knows the name and doſe of the medicine, and the name of the diſeaſe, it is ſufficient to perpetuate the fact. Yet the man who adds one ſingle fact to the ſtock of medical obſervations, does more real ſervice to the art, than he who writes a volume in ſupport of ſome favourite hypotheſis.

Very few of the valuable diſcoveries in Medicine have been made by phyſicians. They have in general either been the effect of chance or of neceſſity, and have been often oppoſed by the Faculty, till every one elſe was convinced of their importance. An implicit faith in the opinions of teachers, an attachment to ſyſtems and eſtabliſhed forms, and the dread of reflections, will always operate upon thoſe who follow Medicine as a trade. Few improvements are to be expected from a man who might ruin his character and family by even the ſmalleſt deviation from an eſtabliſhed rule.

If men of letters, ſays the author of the performance quoted above, were to claim their right of inquiry into a matter that ſo nearly concerns them, the good effects on Medicine would ſoon appear. Such men would have no ſeparate intereſt from that of the art. They would detect and expoſe aſſuming Ignorance under the maſk of Gravity and Importance, and would be the judges and patrons of modeſt merit. Not having their underſtandings perverted in their youth by falſe theories, unawed by authority, and unbiaſſed by intereſt, they would canvaſs with freedom the moſt univerſally received principles in Medicine, and expoſe the uncertainty of many of thoſe doctrines, of which a phyſician dares not ſo much as ſeem to doubt.

No argument, continues he, can be brought againſt laying open Medicine, which does not apply with equal, if not greater, force to religion; yet experience has ſhewn, that ſince the laity have aſſerted their right of inquiry into theſe ſubjects, Theology, conſidered as a ſcience, has been improved, the intereſts of real religion have been promoted, and the clergy have become a more learned, a more uſeful, and a more reſpectable body of men than they ever were in the days of their greateſt power and ſplendor.

Had other medical writers been as honeſt as this gentleman, the art had been upon a very different footing at this day. Moſt of them extol the merit of thoſe men who brought Philoſophy out of the ſchools, and ſubjected it to the rules of common ſenſe. But they never conſider that Medicine, at preſent, is in nearly the ſame ſituation as Philoſophy was at that time, and that it might be as much improved by being treated in the ſame manner. Indeed, no ſcience can be rendered either rational or uſeful, without being ſubmitted to the common ſenſe and reaſon of mankind. Theſe alone ſtamp a value upon ſcience; and what will not bear the teſt of theſe ought to be rejected.

I know it will be ſaid, that diffuſing medical knowledge among the people might induce them to tamper with Medicine, and to truſt to their own ſkill inſtead of calling in a phyſician. The reverſe of this however is true. Perſons who have moſt knowledge in theſe matters, are commonly moſt ready both to aſk and to follow advice, when it is neceſſary. The ignorant are always moſt apt to tamper with Medicine, and have the leaſt confidence in phyſicians. Inſtances of this are daily to be met with among the ignorant, who, while they abſolutely refuſe to take a medicine which has been

preſcribed by a phyſician, will ſwallow with greedineſs any thing that is recommended to them by their credulous neighbours. Where men will act even without knowledge, it is certainly more rational to afford them all the light we can, than to leave them entirely in the dark.

It may alſo be alleged, that laying Medicine more open to mankind would leſſen their faith in it. This would indeed be the caſe with regard to ſome; but it would have a quite contrary effect upon others. I know many people who have the utmoſt dread and horror of every thing preſcribed by a phyſician, but who will nevertheleſs very readily take a medicine which they know, and whoſe qualities they are in ſome meaſure acquainted with. Hence it is evident that the dread ariſes from the doctor, not from the drug. Nothing ever can or will inſpire mankind with an abſolute confidence in phyſicians, but an open, frank, and undiſguiſed behaviour. While the leaſt ſhadow of myſtery remains in the conduct of the Faculty, doubts, jealouſies, and ſuſpicions, will ariſe in the minds of men.

No doubt caſes will ſometimes occur, where a prudent phyſician may find it expedient to diſguiſe a medicine. The whims and humors of men muſt be regarded by thoſe who mean to do them ſervice; but this can never affect the general argument in favour of candour and openneſs. A man might as well allege, becauſe there are knaves and fools in the world, that he ought to take every one he meets for ſuch, and to treat him accordingly. A ſenſible phyſician will always know where diſguiſe is neceſſary; but it ought never to appear on the face of his general conduct.

The appearance of myſtery in the conduct of phyſicians not only renders their art ſuſpicious, but lays the foundations of Quackery, which is the diſgrace

grace of Medicine. No two characters can be more different than that of the honeſt phyſician and the quack; yet they have generally been very much confounded.

No laws will ever be able to prevent quackery, while people believe that the quack is as honeſt a man, and as well qualified, as the phyſician. A very ſmall degree of medical knowledge, however, would be ſufficient to break this ſpell; and nothing elſe can effectually undeceive them. It is the ignorance and credulity of the multitude, with regard to medicine, which renders them ſuch an eaſy prey to every one who has the hardineſs to attack them in this quarter. Nor can the evil be remedied by any other means but by making them wiſer.

The moſt effectual way to deſtroy quackery in any art or ſcience, is to diffuſe the knowledge of theſe among mankind.

Diffuſing medical knowledge among the people would not only tend to improve the art, and to baniſh quackery, but likewiſe to render Medicine more univerſally uſeful, by extending its benefits to ſociety. However long Medicine may have been known as a ſcience, we will venture to ſay, that many of its moſt important purpoſes to ſociety have either been overlooked, or very little attended to. The cure of diſeaſes is doubtleſs a matter of great importance; but the preſervation of health is of ſtill greater. This is the concern of every man, and ſurely what relates to it ought to be rendered as plain and obvious to all as poſſible. It is not to be ſuppoſed, that men can be ſufficiently upon their guard againſt diſeaſes, who are totally ignorant of their cauſes. Neither can the legiſlature, in whoſe power it is to do much more for preſerving the public health than can ever be done by the Faculty, exert that power with pro-

priety, and to the greateſt advantage, without ſome degree of medical knowledge.

Men of every occupation and condition in life, might avail themſelves of a degree of medical knowledge; as it would teach them to avoid the dangers peculiar to their reſpective ſtations; which is always eaſier than to remove their effects. Medical knowledge, inſtead of being a check upon the enjoyments of life, only teaches men how to make the moſt of them. It has indeed been ſaid, that *to live medically is to live miſerably*: but it might with equal propriety be ſaid, that to live rationally is to live miſerably. If phyſicians obtrude their own ridiculous whims upon mankind, or lay down rules inconſiſtent with reaſon or common ſenſe, no doubt they will be deſpiſed. But this is not the fault of Medicine. It propoſes no rules that I know, but ſuch as are perfectly conſiſtent with the true enjoyment of life, and every way conducive to the real happineſs of mankind.

We are ſorry indeed to obſerve, that Medicine has hitherto hardly been conſidered as a popular ſcience, but as a branch of knowledge ſolely confined to a particular ſet of men, while all the reſt have been taught not only to neglect, but even to dread and deſpiſe it. It will however appear, upon a more ſtrict examination, that no ſcience better deſerves their attention, or is more capable of being rendered generally uſeful.

People are told, that if they dip the leaſt into medical knowledge, it will render them fanciful, and make them believe they have every diſeaſe of which they read. This I am ſatisfied will ſeldom be the caſe with ſenſible people; and, ſuppoſe it were, they muſt ſoon be undeceived. A ſhort time will ſhew them their error, and a little more reading will infallibly

infallibly correct it. A ſingle inſtance will ſhew the abſurdity of this notion. A ſenſible woman, rather than read a medical performance which would inſtruct her in the management of her children, muſt leave them entirely to the care and conduct of the moſt ignorant, credulous, and ſuperſtitious part of the human ſpecies.

No part of Medicine is of more general importance than that which relates to the nurſing and management of children. Yet few parents pay a proper attention to it. They leave the ſole care of their tender offspring, at the very time when care and attention are moſt neceſſary, to hirelings, who are either too careleſs to do their duty, or too ignorant to know it. We will venture to affirm, that more human lives are loſt by the careleſſneſs and inattention of parents and nurſes, than are ſaved by the Faculty; and that the joint and well-conducted endeavours, both of private perſons and the public, for the preſervation of infant lives, would be of more advantage to ſociety, than the whole art of Medicine, upon its preſent footing.

The benefits of Medicine, as a trade, will ever be confined to thoſe who are able to pay for them; and of courſe, the far greater part of mankind will be every where deprived of them. Phyſicians, like other people, muſt live by their employment, and the poor muſt either want advice altogether, or take up with that which is worſe than none. There are not, however, any where wanting well-diſpoſed people, of better ſenſe, who are willing to ſupply the defect of medical advice to the poor, did not their fear of doing ill often ſuppreſs their inclination to do good. Such people are often deterred from the moſt noble and praiſe-worthy actions, by the fooliſh alarms ſounded in their ears by a ſet of men who, to raiſe their own importance, magnify the

difficulties of doing good, find fault with what is truly commendable, and fleer at every attempt to relieve the ſick, which is not conducted by the preciſe rules of Medicine. Theſe gentlemen muſt, however excuſe me for ſaying, that I have often known ſuch well-diſpoſed perſons do much good; and that their practice, which is generally the reſult of good ſenſe and obſervation, aſſiſted by a little medical reading, is frequently more rational than that of the ignorant retainer to phyſic, who deſpiſes both reaſon and obſervation, *that he may go wrong by rule:* and who, while he is doſing his patient with medicines, often neglects other things of far greater importance.

Many things are neceſſary for the ſick beſides medicine. Nor is the perſon who takes care to procure thoſe for them, of leſs importance than a phyſician. The poor oftener periſh in diſeaſes for want of proper nurſing than of medicine. They are frequently in want of even the neceſſaries of life, and ſtill more ſo of what is proper for a ſick-bed. No one can imagine, who has not been a witneſs of theſe ſituations, how much good a well-diſpoſed perſon may do, by only taking care to have ſuch wants ſupplied. There certainly cannot be a more neceſſary, a more noble, or a more god-like action, than to adminiſter to the wants of our fellow-creatures in diſtreſs. While virtue or religion are known among mankind, this conduct will be approved; and while Heaven is juſt, it muſt be rewarded!

Perſons who do not chuſe to adminiſter medicine to the ſick, may nevertheleſs direct their regimen. An eminent medical author has ſaid, That by diet alone all the intentions of Medicines may be anſwered*. No doubt a great many of them may; but there are other things beſide diet, which ought

* Arbuthnot.

by no means to be neglected. Many hurtful and deſtructive prejudices, with regard to the treatment of the ſick, ſtill prevail among the people, which perſons of better ſenſe and learning only can eradicate. To guard the poor againſt the influence of theſe prejudices, and to inſtil into their minds ſome juſt ideas of the importance of proper food, freſh air, cleanlineſs, and other pieces of regimen neceſſary in diſeaſes, would be a work of great merit, and productive of many happy conſequences. A proper regimen, in moſt diſeaſes, is at leaſt equal to medicine, and in many of them it is greatly ſuperior.

To aſſiſt the well-meant endeavours of the humane and benevolent in relieving diſtreſs; to eradicate dangerous and hurtful prejudices; to guard the ignorant and credulous againſt the frauds and impoſitions of quacks and impoſtors; and to ſhew men what is in their own power, both with regard to the prevention and cure of diſeaſes, are certainly objects worthy of the phyſician's attention. Theſe were the leading views in compoſing and publiſhing the following ſheets. They were ſuggeſted by an attention to the conduct of mankind, with regard to Medicine, in the courſe of a pretty long practice in different parts of this iſland, during which the author has often had occaſion to wiſh that his patients, or thoſe about them, had been poſſeſſed of ſome ſuch plain directory for regulating their conduct. How far he has ſucceeded in his endeavours to ſupply this deficiency, muſt be left for others to determine; but if they be found to contribute in any meaſure towards alleviating the calamities of mankind, he will think his labour very well beſtowed.

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PART

PART I.

OF THE GENERAL CAUSES OF DISEASES.

CHAPTER I.

Of Children.

THE better to trace diſeaſes from their original cauſes we ſhall take a view of the common treatment of mankind in the ſtate of infancy. In this period of our lives, the foundations of a good or bad conſtitution are generally laid; it is therefore of importance, that parents be well acquainted with the various cauſes which may injure the health of their offspring.

It appears from the annual regiſters of the dead, that almoſt one half of the children born in Great Britain die under twelve years of age. To many, indeed, this may appear a natural evil; but, on due examination, it will be found to be one of our own creating. Were the death of infants a natural evil, other animals would be as liable to die young as man; but this we find is by no means the caſe.

It may ſeem ſtrange that man, notwithſtanding his ſuperior reaſon, ſhould fall ſo far ſhort of other

animals in the management of his young: But our ſurpriſe will ſoon ceaſe, if we conſider that brutes, guided by inſtinct, never err in this reſpect; while man, truſting ſolely to art, is ſeldom right. Were a catalogue of thoſe infants who periſh annually by art alone exhibited to public view, it would aſtoniſh moſt people.

If parents are above taking care of their children, others muſt be employed for that purpoſe: theſe will always endeavour to recommend themſelves by the appearance of extraordinary ſkill and addreſs. By this means ſuch a number of unneceſſary and deſtructive articles have been introduced into the diet, clothing, &c. of infants, that it is no wonder ſo many of them periſh.

Nothing can be more prepoſterous than a mother who thinks it below her to take care of her own child, or who is ſo ignorant as not to know what is proper to be done for it. If we ſearch Nature throughout, we cannot find a parallel to this. Every other animal is the nurſe of its own offſpring, and they thrive accordingly. Were the brutes to bring up their young by proxy, they would ſhare the ſame fate with thoſe of the human ſpecies.

We mean not, however, to impoſe it as a taſk upon every mother to ſuckle her own child. This, whatever ſpeculative writers may allege, is in ſome caſes impracticable, and would inevitably prove deſtructive both to the mother and child. Women of delicate conſtitutions, ſubject to hyſteric fits, or other nervous affections, make very bad nurſes: and theſe complaints are now ſo common, that it is rare to find a woman of faſhion free from them; ſuch women, therefore, ſuppoſing them willing, are often unable to ſuckle their own children.

Almoſt every mother would be in a condition to give ſuck, did mankind live agreeably to Nature: but

but whoever conſiders how far many mothers deviate from her dictates, will not be ſurpriſed to find ſome of them unable to perform that neceſſary office. Mothers who do not eat a ſufficient quantity of ſolid food, nor enjoy the benefit of free air and exerciſe, can neither have wholeſome juices themſelves, nor afford proper nouriſhment to an infant. Hence children who are ſuckled by delicate women, either die young, or continue weak and ſickly all their lives.

When we ſay that mothers are not always in a condition to ſuckle their own children, we would not be underſtood as diſcouraging that practice. Every mother who can, ought certainly to perform ſo tender and agreeable an office *. But, ſuppoſe it to be out of her power, ſhe may, nevertheleſs, be of great ſervice to her child. The buſineſs of nurſing is by no means confined to giving ſuck. To a woman who abounds with milk, this is the eaſieſt part of it. Numberleſs other offices are neceſſary for a child, which the mother ought at leaſt to ſee done.

A mother who abandons the fruit of her womb, as ſoon as it is born, to the ſole care of an hireling, hardly deſerves that name. A child, by being brought up under the mother's eye, not only ſecures her affection, but may reap all the advantages of a

* Many advantages would ariſe to ſociety, as well as to individuals, from mothers ſuckling their own children. It would prevent the temptation which poor women are laid under of abandoning their children to ſuckle thoſe of the rich for the ſake of gain: by which means ſociety loſes many of its moſt uſeful members, and mothers become in ſome ſenſe the murderers of their own offſpring. I am ſure I ſpeak within the truth when I ſay; that not one in twenty of thoſe children live, who are thus abandoned by their mothers. For this reaſon no mother ſhould be allowed to ſuckle another's child, till her own is either dead, or fit to be weaned. A regulation of this kind would ſave many lives among the poorer ſort, and could do no hurt to the rich.

parent's care, though it be ſuckled by another. How can a mother be better employed than in ſuperintending the nurſery? This is at once the moſt delightful and important office; yet the moſt trivial buſineſs or inſipid amuſements are often preferred to it! A ſtrong proof both of the bad taſte and wrong education of modern females.

It is indeed to be regretted, that more care is not beſtowed in teaching the proper management of children to thoſe whom nature has deſigned for mothers. This, inſtead of being made the principal, is ſeldom conſidered as any part of female education. Is it any wonder, when females ſo educated come to be mothers, that they ſhould be quite ignorant of the duties belonging to that character? However ſtrange it may appear, it is certainly true, that many mothers, and thoſe of faſhion too, are as ignorant, when they have brought a child into the world, of what is to be done for it, as the infant itſelf. Indeed, the moſt ignorant of the ſex are generally reckoned moſt knowing in the buſineſs of nurſing. Hence, ſenſible people become the dupes of ignorance and ſuperſtition; and the nurſing of children, inſtead of being conducted by reaſon, is the reſult of whim and caprice *.

Were the time that is generally ſpent by females in the acquiſition of trifling accompliſhments, employed in learning how to bring up their children;

* Tacitus, the celebrated Roman Hiſtorian, complains greatly of the degeneracy of the Roman ladies in his time, with regard to the care of their offſpring. He ſays that, in former times, the greateſt women in Rome uſed to account it their chief glory to keep the houſe and attend their children; but that now the young infant was committed to the ſole care of ſome poor Greekian wench, or other menial ſervant—We are afraid, wherever luxury and effeminacy prevail, there will be too much ground for this complaint.

how

how to dreſs them ſo as not to hurt, cramp, or confine their motions; how to feed them with wholeſome and nouriſhing food; how to exerciſe their tender bodies, ſo as beſt to promote their growth and ſtrength: were theſe made the objects of female inſtruction, mankind would derive the greateſt advantages from it. But while the education of females implies little more than what relates to dreſs and public ſhew, we have nothing to expect from them but ignorance, even in the moſt important concerns.

Did mothers reflect on their own importance, and lay it to heart, they would embrace every opportunity of informing themſelves of the duties which they owe to their infant offspring. It is their province, not only to form the body, but alſo to give the mind its moſt early bias. They have it very much in their power to make men healthy or valetudinary, uſeful in life, or the peſts of ſociety.

But the mother is not the only perſon concerned in the management of children. The father has an equal intereſt in their welfare, and ought to aſſiſt in every thing that reſpects either the improvement of the body or mind.

It is a pity that the men ſhould be ſo inattentive to this matter. Their negligence is one reaſon why females know ſo little of it. Women will ever be deſirous to excel in ſuch accompliſhments as recommend them to the other ſex. But men generally keep at ſuch a diſtance from even the ſmalleſt acquaintance with the affairs of the nurſery, that many would reckon it an affront, were they ſuppoſed to know any thing of them. Not ſo, however, with the kennel or the ſtables: a gentleman of the firſt rank is not aſhamed to give directions concerning the management of his dogs or horſes, yet would bluſh were he ſurpriſed in performing the ſame office for

that being who derived its exiſtence from himſelf, who is the heir of his fortunes, and the future hope of his country.

Nor have phyſicians themſelves been ſufficiently attentive to the management of children: this has been generally conſidered as the ſole province of old women. Such conduct has not only cauſed this branch of medicine to be neglected, but has alſo encouraged the other ſex to aſſume an abſolute title to preſcribe for children in the moſt dangerous diſeaſes. The conſequence is, that a phyſician is too ſeldom called till the good women have exhauſted all their ſkill; when his attendance can only ſerve to divide the blame, and appeaſe the diſconſolate parents.

Nurſes ſhould do all in their power to prevent diſeaſes; but when a child is taken ill, ſome perſon of ſkill ought immediately to be conſulted. The diſeaſes of children are generally acute, and the leaſt delay is dangerous.

Were phyſicians more attentive to the diſeaſes of infants, they would not only be better qualified to treat them properly when ſick, but likewiſe to give uſeful directions for their management when well. The diſeaſes of children are by no means ſo difficult to be underſtood as many imagine. It is true, children cannot tell their complaints; but the cauſes of them may be pretty certainly diſcovered by obſerving the ſymptoms, and putting proper queſtions to the nurſes. Beſides, the diſeaſes of infants being leſs complicated, are eaſier cured than thoſe of adults. *

* The common opinion that the diſeaſes of infants are hard to diſcover and difficult to cure, has deterred many phyſicians from paying that attention to them which they deſerve. I can, however, from experience declare, that this opinion is without foundation; and that the diſeaſes of infants are neither ſo difficult to diſcover, nor ſo ill to cure, as thoſe of adults.

It

It is really aſtoniſhing, that ſo little attention ſhould in general be paid to the preſervation of infants. What labour and expence are daily beſtowed, to prop an old tottering carcaſe for a few years, while thouſands of thoſe who might be uſeful in life, periſh without being regarded! Mankind are too apt to value things according to their preſent, not their future, uſefulneſs. Though this is, of all others, the moſt erroneous method of eſtimation; yet, upon no other principle, is it poſſible to account for the general indifference, with reſpect to the death of infants.

Of Diſeaſed Parents.

One great ſource of the diſeaſes of children is, the UNHEALTHINESS OF PARENTS. It would be as unreaſonable to expect a rich crop from a barren ſoil, as that ſtrong and healthy children ſhould be born of parents whoſe conſtitutions have been worn out with intemperance or diſeaſe.

An ingenious writer * obſerves, that on the conſtitution of mothers depends originally that of their offspring. No one, who believes this, will be ſurpriſed, on a view of the female world, to find diſeaſes and death ſo frequent among children. A delicate female, brought up within doors, an utter ſtranger to exerciſe and open air, who lives on tea and other ſlops, may bring a child into the world, but it will hardly be fit to live. The firſt blaſt of diſeaſe will nip the tender plant in the bud: or, ſhould it ſtruggle through a few years exiſtence, its feeble frame, ſhaken with convulſions from every trivial cauſe, will be unable to perform the common functions of life, and prove a burden to ſociety.

* Rouſſeau.

If to the delicacy of mothers, we add the irregular lives of fathers, we ſhall ſee farther cauſe to believe, that children are often hurt by the conſtitutions of their parents. A ſickly frame may be originally induced by hardſhips or intemperance, but chiefly by the latter. It is impoſſible that a courſe of vice ſhould not ſpoil the beſt conſtitution: and, did the evil terminate here, it would be a juſt puniſhment for the folly of the ſufferer. What a dreadful inheritance is the gout, the ſcurvy, or the king's evil, to tranſmit to our offspring! how happy had it been for the heir of many a great eſtate, had he been born a beggar, rather than to inherit his father's fortunes, at the expence of inheriting his diſeaſes!

A perſon labouring under any incurable malady, ought not to marry. He thereby not only ſhortens his own life, but tranſmits miſery to others: but, when both parties are deeply tainted with the ſcrophula, the ſcurvy, or the like, the effects muſt be miſerable indeed. Want of attention to theſe things, in forming connections for life, has rooted out more families than plague, famine, or the ſword; and, as long as theſe connections are formed from mercenary views, the evil will be continued. *

In our matrimonial contracts, it is amazing ſo little regard is had to the health and form of the object. Our ſportſmen know, that the generous courſer cannot be bred out of the foundered jade, nor the ſagacious ſpaniel out of the ſnarling cur. This is ſettled upon immutable laws. The man who marries a woman of a ſickly conſtitution, and deſcended of unhealthy parents, whatever his views

* The Lacedemonians condemned their king Archidamus, for having married a weak, puny woman: becauſe, ſaid they, inſtead of propagating a race of heroes, you will fill the throne with a progeny of changelings.

may

may be, cannot be ſaid to act a prudent part. A diſeaſed woman may prove fertile; ſhould this be the caſe, the family muſt become an infirmary: what proſpect of happineſs the father of ſuch a family has, we ſhall leave any one to judge. *

Such children as have the misfortune to be born of diſeaſed parents, will require to be nurſed with greater care than others. This is the only way to make amends for the defects of conſtitution; and it will often go a great length. An healthy nurſe, wholeſome air, and ſufficient exerciſe, will do wonders. But when theſe are neglected, little is to be expected from any other quarter. The defects of conſtitution cannot be ſupplied by medicine.

Thoſe who inherit any family diſeaſe, ought to be very circumſpect in their manner of living. They ſhould conſider well the nature of ſuch diſeaſe, and guard againſt it by a proper regimen. It is certain, that family diſeaſes have often, by proper care, been kept off for one generation; and there is reaſon to believe, that, by perſiſting in the ſame courſe, ſuch diſeaſes might at length be wholly eradicated. This is a ſubject very little regarded, though of the greateſt importance. Family conſtitutions are as capable of improvement as family eſtates; and the libertine, who impairs the one, does greater injury to his poſterity, than the prodigal, who ſquanders away the other.

* The Jews, by their laws, were, in certain caſes, forbid to have any manner of commerce with the diſeaſed; and indeed to this all wiſe legiſlators ought to have a ſpecial regard. In ſome countries, diſeaſed perſons have actually been forbid to marry. This is an evil of a complicated kind, a natural deformity, and political miſchief; and therefore requires a public conſideration.

Of the Clothing of Children.

The clothing of an infant is ſo ſimple a matter, that it is ſurpriſing how any perſon ſhould err in it; yet many children loſe their lives, and others are deformed, by inattention to this article.

Nature knows no uſe of clothes to an infant, but to keep it warm. All that is neceſſary for this purpoſe, is to wrap it in a ſoft looſe covering. Were a mother left to the dictates of Nature alone, ſhe would certainly purſue this courſe. But the buſineſs of dreſſing an infant, has long been out of the hands of mothers, and has at laſt become a ſecret which none but adepts pretend to underſtand.

From the moſt early ages, it has been thought neceſſary, that a woman in labour ſhould have ſome perſon to attend her. This in time became a buſineſs; and, as in all others, thoſe who were employed in it, ſtrove to outdo one another in the different branches of their profeſſion. The dreſſing of a child came of courſe to be conſidered as the midwife's province, who no doubt imagined, that the more dexterity ſhe could ſhow, in this article, the more her ſkill would be admired. Her attempts were ſeconded by the vanity of parents, who, too often deſirous of making a ſhow of the infant as ſoon as it was born, were ambitious to have as much finery heaped upon it as poſſible. Thus it came to be thought as neceſſary for a midwife to excel in bracing and dreſſing an infant, as for a ſurgeon to be expert in applying bandages to a broken limb; and the poor child, as ſoon as it came into the world, had as many rollers and wrappers applied to its body, as if every bone had been fractured in the birth; while theſe were often ſo tight, as not only to gall and wound its tender

tender frame, but even to obſtruct the motion of the heart, lungs, and other organs neceſſary for life.

In moſt parts of Britain, the practice of rolling children with ſo many bandages is now, in ſome meaſure, laid aſide; but it would ſtill be a difficult taſk to perſuade the generality of mankind, that the ſhape of an infant does not entirely depend on the care of the midwife. So far, however, are all her endeavours to mend the ſhape from being ſucceſsful, that they conſtantly operate the contrary way, and mankind become deformed in proportion to the means uſed to prevent it. How little deformity of body is to be found among uncivilized nations? So little, indeed, that it is vulgarly believed they put all their deformed children to death. The truth is, they hardly know ſuch a thing as a deformed child. Neither ſhould we, if we followed their example. Savage nations never think of manacling their children. They allow them the full uſe of every organ, carry them abroad in the open air, waſh their bodies daily in cold water, &c. By this management, their children become ſo ſtrong and hardy, that, by the time our puny infants get out of the nurſe's arms, theirs are able to ſhift for themſelves. *

Among brute animals, no art is neceſſary to procure a fine ſhape. Though many of them are extremely delicate, when they come into the world, yet we never find them grow crooked for want of ſwaddling bands. Is nature leſs generous to the

* A friend of mine, who was ſeveral years on the coaſt of Africa, tells me, that the natives neither put any clothes upon their children, nor apply to their bodies bandages of any kind, but lay them on a pallet, and ſuffer them to tumble about at pleaſure; yet they are all ſtrait, and ſeldom have any diſeaſe. An American need go no further, for examples of the truth of this aſſertion, than in our own country. The ſhapes of the Indians are proverbial.

human

human kind? No: but we take the buſineſs out of Nature's hands.

Not only the analogy of other animals, but the very feelings of infants tell us, they ought to be kept eaſy and free from all preſſure. They cannot indeed tell their complaints; but they can ſhew ſigns of pain; and this they never fail to do, by crying when hurt by their clothes. No ſooner are they freed from their bracings, than they ſeem pleaſed and happy; yet, ſtrange infatuation! the moment they hold their peace, they are again committed to their chains.

If we conſider the body of an infant as a bundle of ſoft pipes, repleniſhed with fluids, in continual motion, the danger of preſſure will appear in the ſtrongeſt light. Nature, in order to make way for the growth of children, has formed their bodies ſoft and flexible; and, leſt they ſhould receive any injury from preſſure in the womb, has ſurrounded the *fœtus* every where with fluids. This ſhews the care which Nature takes to prevent all unequal preſſure on the bodies of infants, and to defend them againſt every thing that might in the leaſt cramp or confine their motions.

Even the bones of an infant are ſo ſoft and cartilaginous, that they readily yield to the ſlighteſt preſſure, and eaſily aſſume a bad ſhape, which can never after be remedied. Hence it is, that ſo many people appear with high ſhoulders, crooked ſpines, and flat breaſts, who were as well proportioned at their birth as others, but had the misfortune to be ſqueezed out of ſhape, by the application of ſtays and bandages.

Preſſure, by obſtructing the circulation, likewiſe prevents the equal diſtribution of nouriſhment to the different parts of the body, by which means the growth becomes unequal. One part grows too large,

large, while another remains too ſmall; and thus, in time, the whole frame becomes diſproportioned and misſhapen. To this we muſt add, that when a child is cramped in its clothes, it naturally ſhrinks from the part that is hurt; and, by putting its body into unnatural poſtures, it becomes deformed by habit.

Deformity of body may indeed proceed from weakneſs or diſeaſe; but, in general, it is the effect of improper clothing. Nine-tenths, at leaſt, of the deformity among mankind, muſt be imputed to this cauſe. A deformed body is not only diſagreeable to the eye, but, by a bad figure, both the animal and vital functions muſt be impeded, and, of courſe, health impaired. Hence, few people remarkably misſhapen are ſtrong or healthy.

The new motions which commence at the birth, as the circulation of the whole maſs of blood through the lungs, reſpiration, the periſtaltic motion, &c. afford another ſtrong argument for keeping the body of an infant free from all preſſure. Theſe organs, not having been accuſtomed to move, are eaſily ſtopped; but when this happens, death muſt enſue. Hardly any method could be deviſed more effectually to ſtop theſe motions, than bracing the body too tight with rollers * and bandages. Were theſe to be applied in the ſame manner to the body of an adult, for an equal length of time, they would hardly fail to hurt the digeſtion and make him ſick. How much more hurtful they muſt prove to the tender bodies of infants, we ſhall leave any one to judge.

Whoever conſiders theſe things, will not be ſurpriſed, that ſo many children die of convulſions ſoon

* This is by no means inveighing againſt a thing that does not happen. In many parts of Britain, and in France, at this day, a roller, eight or ten feet in length, is applied tightly round the child's body, as ſoon as it is born.

after

after the birth. Theſe fits are generally attributed to ſome inward cauſe; but in fact, they oftener proceed from our own imprudent conduct. I have known a child ſeized with convulſion-fits, ſoon after the midwife had done ſwaddling it, who, upon taking off the rollers and bandages, was immediately relieved, and never had the diſeaſe afterwards. Numerous examples of this might be given, were they neceſſary.

It would be far ſafer to faſten the clothes of an infant with ſtrings than pins, as theſe often gall and irritate their tender ſkins, and occaſion diſorders. Pins have been found ſticking above half an inch into the body of a child, after it had died of convulſion fits, which, in all probability, proceeded from that cauſe.

Children are not only hurt by the tightneſs of their clothes, but alſo by the quantity. Every child has ſome degree of fever after the birth; and if it be loaded with too many clothes, the fever muſt be increaſed. But this is not all; the child is generally laid in bed with the mother, who is often likewiſe feveriſh; to which we may add the heat of the bed-chamber, the wines, and other heating things, too frequently given to children immediately after the birth. When all theſe are combined, which does not ſeldom happen, they muſt increaſe the fever to ſuch a degree as will endanger the life of the infant.

The danger of keeping infants too hot will further appear, if we conſider that, after they have been for ſome time in the ſituation mentioned above, they are often ſent into the country to be nurſed in a cold houſe. Is it any wonder, if a child, from ſuch a tranſition, catches a mortal cold, or contracts ſome other fatal diſeaſe? When an infant is kept too hot, its lungs, not being ſufficiently expanded, are apt to remain weak and flaccid for life; hence proceed

ceed coughs, conſumptions, and other diſeaſes of the breaſt.

It would anſwer little purpoſe, to ſpecify the particular ſpecies of dreſs proper for an infant. Theſe will always vary in different countries, according to cuſtom and the humour of parents. The great rule to be obſerved is, *That a child have no more clothes than are neceſſary to keep it warm, and that they be quite eaſy for its body.*

Stays are the very bane of infants. A volume would not ſuffice to point out all the bad effects of this ridiculous piece of dreſs both on children and adults. The madneſs in favour of ſtays ſeems, however, to be ſomewhat abated; and it is to be hoped the world will, in time, become wiſe enough to know, that the human ſhape does not ſolely depend upon whale-bone and bend-leather. *

I ſhall only add, with reſpect to the clothes of children, that they ought to be kept thoroughly clean. Children perſpire more than adults; and if their clothes be not frequently changed, they become very hurtful. Dirty clothes not only gall and fret the tender ſkins of infants, but likewiſe occaſion ill ſmells; and, what is worſe, tend to produce vermin and cutaneous diſeaſes.

Cleanlineſs is not only agreeable to the eye, but tends greatly to preſerve the health of children. It promotes the perſpiration, and, by that means, frees

* Stays made of bend-leather, are worn by all the women of lower ſtation, in many parts of England.

I am ſorry to underſtand, that there are ſtill mothers mad enough to lace their daughters very tight, in order to improve their ſhape. As reaſoning would be totally loſt upon ſuch people, I ſhall beg leave juſt to aſk them, why there are ten deformed women for one man? and likewiſe to recommend to their peruſal a ſhort moral precept, which forbids us to *deform the human body.*

the

the body from ſuperfluous humours, which, if retained, could not fail to occaſion diſeaſes. No mother or nurſe can have any excuſe for allowing a child to be dirty. Poverty may oblige her to give it coarſe clothes; but if ſhe does not keep them clean, it muſt be her own fault.

Of the Food of Children.

Nature not only points out the food proper for an infant, but actually prepares it. This, however, is not ſufficient to prevent ſome who think themſelves wiſer than Nature, from attempting to bring up their children without her proviſion. Nothing can ſhew the diſpoſition which mankind have to depart from Nature more, than their endeavouring to bring up children without the breaſt. The mother's milk, or that of an healthy nurſe, is unqueſtionably the beſt food for an infant. Neither art nor nature can afford a proper ſubſtitute for it. Children may ſeem to thrive for a few months without the breaſt; but, when teething, the ſmall-pox, and other diſeaſes incident to childhood, come on, they generally periſh.

A child, ſoon after the birth, ſhews an inclination to ſuck; and there is no reaſon why it ſhould not be gratified. It is true, the mother's milk does not always come immediately after the birth; but this is the way to bring it: beſides, the firſt milk that the child can ſqueeze out of the breaſt anſwers the purpoſe of cleanſing, better than all the drugs in the apothecary's ſhop, and at the ſame time prevents inflammations of the breaſt, fevers, and other diſeaſes incident to mothers.

It is ſtrange how people came to think that the firſt thing given to a child ſhould be drugs. This is beginning with medicine betimes, and no wonder if they generally ended with it. It ſometimes happens,

indeed, that a child does not diſcharge the *meconium* ſo ſoon as could be wiſhed; this has induced phyſicians, in ſuch caſes, to give ſomething of an opening nature to cleanſe the firſt paſſages. Midwives have improved upon this hint, and never fail to give ſyrups, oils, &c. whether they be neceſſary or not. Cramming an infant with ſuch indigeſtible ſtuff as ſoon as it is born, can hardly fail to make it ſick, and is more likely to occaſion diſeaſes than to prevent them. Children are ſeldom long after the birth without having paſſage both by ſtool and urine; though theſe evacuations may be wanting for ſome time without any danger. But if children muſt have ſomething before they be allowed the breaſt, let it be a little thin water pap, to which may be added an equal quantity of new milk; or rather water alone, with the addition of a little raw ſugar. If this be given without any wines or ſpiceries, it will neither heat the blood, load the ſtomach, nor occaſion gripes.

Upon the firſt ſight of an infant, almoſt every perſon is ſtruck with the idea of its being weak, feeble, and wanting ſupport. This naturally ſuggeſts the idea of cordials. Accordingly wines are univerſally mixed with the firſt food of children. Nothing can be more fallacious than this way of reaſoning, or more hurtful to infants than the conduct founded upon it. Children require very little food for ſome time after the birth; and what they receive ſhould be thin, weak, light, and of a cooling quality. A very ſmall quantity of wine is ſufficient to heat and inflame the blood of an infant; but every perſon converſant in theſe matters muſt know, that moſt of the diſeaſes of infants proceed from the heat of their humours.

If the mother or nurſe has enough of milk, the child will need little or no other food before the third or fourth month. It will then be proper to give it, once or twice a day, a little of ſome food

that is eaſy of digeſtion, as water-pap, milk pottage, weak broth with bread in it, and ſuch like. This will eaſe the mother, will accuſtom the child by degrees to take food, and will render the weaning both leſs difficult and leſs dangerous. All great and ſudden tranſitions are to be avoided in nurſing. For this purpoſe, the food of children ought not only to be ſimple, but to reſemble, as nearly as poſſible, the properties of milk. Indeed milk itſelf ſhould make a principal part of their food, not only before they are weaned, but for ſome time after*.

Next to milk we ſhould recommend good light bread. Bread may be given to a child as ſoon as it ſhews an inclination to chew; and it may at all times be allowed as much plain bread as it will eat. The very chewing of bread will promote the cutting of the teeth, and the diſcharge of *ſaliva*, while, by mixing with the nurſe's milk in the ſtomach, it will afford an excellent nouriſhment. Children diſcover an early inclination to chew whatever is put into their hands. Parents obſerve the inclination, but generally miſtake the object. Inſtead of giving the child ſomething which may at once exerciſe its gums and afford it nouriſhment, they commonly put into its hands a piece of hard metal, or impenetrable coral. A cruſt of bread is the beſt gum-ſtick. It not only anſwers the purpoſe better than any thing elſe, but has the additional properties of nouriſhing the child and carrying the ſaliva down to the ſtomach, which is too valuable a liquor to be loſt.

* I do not wiſh to differ from the judicious author, but I am well perſuaded, that it is in general beſt to learn children to feed a little when very young, and I believe there is no food ſo proper for them as the hard water biſcuit pounded and boiled in water, and afterwards adding milk and ſugar.

Bread,

Bread, beſides being uſed dry, may be many ways prepared into food for children. One of the beſt methods is to boil it in water, afterwards pouring the water off, and mixing with the bread a proper quantity of new milk unboiled. Milk is both more wholeſome and nouriſhing this way than boiled, and is leſs apt to occaſion coſtiveneſs. For a child farther advanced, bread may be mixed in veal or chicken broth, made into puddings or the like. Bread is a proper food for children at all times, provided it be plain, made of wholeſome grain, and well fermented; but when enriched with fruits, ſugars, or ſuch things, it becomes very unwholeſome.

It is ſoon enough to allow children animal food when they have got teeth to eat it. They ſhould never taſte it till after they are weaned, and even then they ought to uſe it ſparingly. Indeed, when children live wholly on vegetable food, it is apt to ſour on their ſtomachs; but, on the other hand, too much fleſh heats the body, and occaſions fevers and other inflammatory diſeaſes. This plainly points out a due mixture of animal and vegetable food as moſt proper for children.

Few things prove more hurtful to infants, than the common method of ſweetening their food. It entices them to take more than they ought to do, which makes them grow fat and bloated. It is pretty certain, if the food of children were quite plain, that they would never take more than enough. Their exceſſes are entirely owing to nurſes. If a child be gorged with food at all hours, and enticed to take it by making it ſweet and agreeable to the palate, is it any wonder that ſuch a child ſhould in time be induced to crave more food than it ought to have?

Children may be hurt by too little as well as too much food. After a child is weaned, it ought to be

fed four or five times a day; but ſhould never be accuſtomed to eat in the night; neither ſhould it have too much at a time. Children thrive beſt with ſmall quantities of food frequently given. This neither overloads the ſtomach nor hurts the digeſtion, and is certainly moſt agreeable to nature.

Writers on nurſing have inveighed with ſuch vehemence againſt giving children too much food, that many parents, by endeavouring to ſhun that error, have run into the oppoſite extreme, and ruined the conſtitutions of their children. But the error of pinching children in their food is more hurtful than the other extreme. Nature has many ways of relieving herſelf when overcharged; but a child who is pinched with hunger will never become a ſtrong or healthy man. That errors are frequently committed on both ſides, we are ready to acknowledge; but where one child is hurt by the quantity of its food, ten ſuffer from the quality. This is the principal evil, and claims our ſtricteſt attention.

Many people imagine that the food which they themſelves love cannot be bad for their children: but this notion is very abſurd. In the more advanced period of life we often acquire an inclination for food, which when children we could not endure. Beſides, there are many things that by habit may agree very well with the ſtomach of a grown perſon, which would be hurtful to a child; as high-ſeaſoned, ſalted, and ſmoke-dried proviſions, &c. It would alſo be improper to feed children with fat meat, ſtrong broths, rich ſoups, or the like.

All ſtrong liquors are hurtful to children. Some parents teach their children to guzzle ale, and other fermented liquors, at every meal. Such a practice cannot fail to do miſchief. Theſe children ſeldom eſcape the violence of the ſmall-pox, meaſles, whooping cough, or ſome inflammatory diſorder. Milk, water,

water, butter-milk, or whey, are the moſt proper for children to drink. If they have any thing ſtronger, it may be fine ſmall beer, or a little wine mixed with water. The ſtomachs of children can digeſt well enough without the aſſiſtance of warm ſtimulants: beſides, being naturally hot, they are eaſily hurt by every thing of a heating quality.

Few things are more hurtful to children than unripe fruits. They weaken the powers of digeſtion, and ſour and relax the ſtomach, by which means it becomes a proper neſt for inſects. Children indeed ſhew a great inclination for fruit, and I am apt to believe, that if good ripe fruit were allowed them in proper quantity, it would have no bad effects. We never find a natural inclination wrong, if properly regulated. Fruits are generally of a cooling nature, and correct the heat and acrimony of the humours. This is what moſt children require; only care ſhould be taken leſt they exceed. Indeed the beſt way to prevent children from going to exceſs in the uſe of fruit, or eating that which is bad, is to allow them a proper quantity of what is good*.

Roots which contain a crude viſcid juice ſhould be ſparingly given to children. They fill the body with groſs humours, and tend to produce eruptive diſeaſes. This caution is peculiarly neceſſary for the poor; glad to obtain at a ſmall price what will fill the bellies of their children, they ſtuff them two or three times a day with crude vegetables. Children

* Children are always ſickly in the fruit ſeaſon, which may be thus accounted for: Two thirds of the fruit which comes to market in this country is really unripe; and children not being in a condition to judge for themſelves, eat whatever they can lay their hands upon, which often proves little better than a poiſon to their tender bowels. Servants, and others who have the care of children ſhould be ſtrictly forbid to give them any fruit without the knowledge of their parents.

had better eat a ſmaller quantity of food which yields a wholeſome nouriſhment, than be crammed with what their digeſtive powers are unable properly to aſſimilate.

Butter ought likewiſe to be ſparingly given to children. It both relaxes the ſtomach, and produces groſs humours. Indeed, moſt things that are fat or oily, have this effect. Butter, when ſalted, becomes ſtill more hurtful. Inſtead of butter, ſo liberally given to children in moſt parts of Britain, we would recommend honey. Honey is not only wholeſome, but cooling, cleanſing, and tends to ſweeten the humours. Children who eat honey are ſeldom troubled with worms: they are alſo leſs ſubject to cutaneous diſeaſes, as itch, ſcabbed head, &c.

Many people err in thinking that the diet of children ought to be altogether moiſt. When children live entirely upon ſlops, it relaxes their ſolids, renders them weak, and diſpoſes them to the rickets, the ſcropula, and other glandular diſorders. Relaxation is one of the moſt general cauſes of the diſeaſes of children. Every thing therefore which tends to unbrace their ſolids, ought to be carefully avoided.

We would not be underſtood by theſe obſervations as confining children to any particular kind of food. Their diet may be frequently varied, provided always that ſufficient regard be had to ſimplicity.

Of the Exerciſe of Children.

Of all the cauſes which conſpire to render the life of man ſhort and miſerable, none has greater influence than the want of proper EXERCISE: healthy parents, wholeſome food, and proper cloathing, will avail little, where exerciſe is neglected. Sufficient exerciſe will make up for ſeveral defects in nurſing; but

but nothing can ſupply the want of it. It is abſolutely neceſſary to the health, the growth, and the ſtrength of children.

The deſire of exerciſe is coeval with life itſelf. Were this principle attended to, many diſeaſes might be prevented. But, while indolence and ſedentary employments prevent two-thirds of mankind from either taking ſufficient exerciſe themſelves, or giving it to their children, what have we to expect but diſeaſes and deformity among their offſpring? The rickets, ſo deſtructive to children, never appeared in Britain till manufactures began to flouriſh, and people, attracted by the love of gain, left the country to follow ſedentary employments in great towns. It is amongſt theſe people that this diſeaſe chiefly prevails, and not only deforms, but kills many of their offſpring.

The conduct of other young animals ſhews the propriety of giving exerciſe to children. Every other animal makes uſe of its organs of motion as ſoon as it can, and many of them, even when under no neceſſity of moving in queſt of food, cannot be reſtrained without force. This is evidently the caſe with the calf, the lamb, and moſt other young animals. If theſe creatures were not permitted to friſk about and take exerciſe, they would ſoon die or become diſeaſed. The ſame inclination appears very early in the human ſpecies; but as they are not able to take exerciſe themſelves, it is the buſineſs of their parents and nurſes to aſſiſt them.

Children may be exerciſed various ways. The beſt method, while they are light, is to carry them about in the nurſe's arms*. This gives the nurſe

* The nurſe ought to be careful to keep the child in a proper poſition; as deformity is often the conſequence of inattention to this circumſtance. Its ſituation ought alſo to be frequently

an opportunity of talking to the child, and of pointing out every thing that may pleaſe and delight its fancy. Beſides, it is much ſafer than ſwinging an infant in a machine, or leaving it to the care of ſuch as are not fit to take care of themſelves. Nothing can be more abſurd than to ſet one child to keep another: this conduct has proved fatal to many infants, and has rendered others miſerable for life.

When children begin to walk, the ſafeſt and beſt method of leading them about, is by the hands. The common way, of ſwinging them in leading ſtrings fixed to their backs, has ſeveral bad conſequences. It makes them throw their bodies forward, and preſs with their whole weight upon the ſtomach and breaſt; by this means the breathing is obſtructed, the breaſt flattened, and the bowels compreſſed; which muſt hurt the digeſtion, and occaſion conſumptions of the lungs, and other diſeaſes.

It is a common notion, that if children are ſet upon their feet too ſoon, their legs will become crooked. There is reaſon to believe, that the very reverſe of this is true. Every member acquires ſtrength in proportion as it is exerciſed. The limbs of children are weak indeed, but their bodies are proportionably light; and had they ſkill to direct themſelves, they would ſoon be able to ſupport their own weight. Who ever heard of any other animal that became crooked by uſing its legs too ſoon? Indeed, if a child is not permitted to make any uſe of its legs till a conſiderable time after the birth, and be then ſet upon them with its whole weight at once, there may be ſome danger; but this proceeds entirely from the child's not having been accuſtomed to uſe its legs from the beginning.

changed. I have known a child's leg bent all on one ſide, by the nurſe carrying it conſtantly on one arm.

Mothers

Mothers of the poorer ſort think they are great gainers by making their children lie or ſit while they themſelves work. In this they are greatly miſtaken. By neglecting to give their children exerciſe, they are obliged to keep them a long time before they can do any thing for themſelves, and to ſpend more on medicine than would have paid for proper care.

To take care of their children, is the moſt uſeful buſineſs in which even the poor can be employed: but alas! it is not always in their power. Poverty often obliges them to neglect their offspring, in order to procure the neceſſaries of life. When this is the caſe, it becomes the intereſt as well as the duty of the public to aſſiſt them. Ten thouſand times more benefit would accrue to the ſtate, by enabling the poor to bring up their own children, than from all the hoſpitals* that ever can be erected for that purpoſe.

Whoever conſiders the ſtructure of the human body will ſoon be convinced of the neceſſity of exerciſe for the health of children. The body is compoſed of an infinite number of tubes, whoſe fluids cannot be puſhed on without the action and preſſure of the muſcles. But, if the fluids remain inactive, obſtructions muſt happen, and the humours will of courſe be vitiated, which cannot fail to occaſion diſeaſes. Nature has furniſhed both the veſſels

* If it were made the intereſt of the poor to keep their children alive, we ſhould loſe very few of them. A ſmall premium given annually to each poor family, for every child they have alive at the year's end, would ſave more infant lives than if the whole revenue were expended on hoſpitals for this purpoſe. This would make the poor eſteem fertility a bleſſing; whereas many of them think it the greateſt curſe that can befal them; and in the place of wiſhing their children to live; ſo far does poverty get the better of natural affection, that they are often very happy when they die.

which carry the blood and the lymph with numerous valves, in order that the action of every muſcle might puſh forward their contents; but without action, this admirable contrivance can have no effect. This part of the animal œconomy proves to a demonſtration the neceſſity of exerciſe for the preſervation of health.

Arguments to ſhew the importance of exerciſe might be drawn from every part of the animal œconomy; without exerciſe, the circulation of the blood cannot be properly carried on, nor the different ſecretions duly performed; without exerciſe, the fluids cannot be properly prepared, nor the ſolids rendered ſtrong or firm. The action of the heart, the motion of the lungs, and all the vital functions, are greatly aſſiſted by exerciſe. But to point out the manner in which theſe effects are produced, would lead us farther into the œconomy of the human body, than moſt of thoſe for whom this treatiſe is intended would be able to follow. We ſhall therefore only add, that, where exerciſe is neglected, none of the animal functions can be duly performed; and when this is the caſe, the whole conſtitution muſt go to wreck.

A good conſtitution ought certainly to be our firſt object in the management of children. It lays a foundation for their being uſeful and happy in life; and whoever neglects it, not only fails in his duty to his offſpring, but to ſociety.

One very common error of parents, by which they hurt the conſtitutions of their children, is the ſending them too young to ſchool. This is often done ſolely to prevent trouble. When the child is at ſchool, he needs no keeper. Thus the ſchool-maſter is made the nurſe; and the poor child is fixed to a ſeat ſeven or eight hours a day, which time ought to be ſpent in exerciſe and diverſions.

Sitting

Sitting ſo long cannot fail to produce the worſt effects upon the body; nor is the mind leſs injured. Early application weakens the faculties, and often fixes in the mind an averſion to books, which continues for life*.

But ſuppoſe this were the way to make children ſcholars, it certainly ought not to be done at the expence of their conſtitutions. Our anceſtors, who ſeldom went to ſchool very young, were not leſs learned than we. But we imagine the boy's education will be quite marred, unleſs he be carried to ſchool in his nurſe's arms. No wonder if ſuch hot-bed plants ſeldom become either ſcholars or men!

Not only the confinement of children in public ſchools, but their number, often proves hurtful. Children are much injured by being kept in crowds within doors; their breathing not only renders the place unwholeſome, but if any one of them happens to be diſeaſed, the reſt catch the infection. A ſingle child has been often known to communicate the bloody flux, the whooping-cough, the itch, or other diſeaſes, to almoſt every individual in a numerous ſchool.

But, if faſhion muſt prevail, and infants are to be ſent to ſchool, we would recommend it to teachers, as they value the intereſts of ſociety, not to confine them too long at a time, but allow them to run about and play at ſuch active diverſions as may promote their growth, and ſtrengthen their conſtitutions. Were boys, inſtead of being prevented from

* It is undoubtedly the duty of parents to inſtruct their children, at leaſt till they are of an age proper to take ſome care of themſelves. This would tend much to confirm the ties of parental tenderneſs and filial affection, of the want of which there are at preſent ſo many deplorable inſtances. Though few fathers have time to inſtruct their children, yet moſt mothers have; and ſurely they cannot be better employed.

running,

running, riding, ſwimming, or the like, encouraged to employ a proper part of their time in theſe manly and uſeful exerciſes, it would have many excellent effects.

An effeminate education will infallibly ſpoil the beſt natural conſtitution; and if boys are brought up in a more delicate manner than even girls ought to be, they never will be men.

Nor is the common education of girls leſs hurtful to the conſtitution than that of boys. Miſs is ſet down to her frame before ſhe can put on her clothes; and is taught to believe, that to excel at the needle is the only thing that can entitle her to general eſteem. It is unneceſſary here to inſiſt upon the dangerous conſequences of obliging girls to ſit too much. They are pretty well known, and are too often felt at a certain time of life. But ſuppoſing this critical period to be got over, greater dangers ſtill await them when they come to be mothers. Women who have been early accuſtomed to a ſedentary life, generally run great hazards in childbed; while thoſe who have been uſed to take ſufficient exerciſe, are ſeldom in any danger.

One hardly meets with a girl who can at the ſame time boaſt of early performances by the needle, and a good conſtitution. Cloſe and early confinement generally occaſions indigeſtions, head-achs, pale complexions, pain of the ſtomach, loſs of appetite, coughs, conſumptions of the lungs, and deformity of body. The laſt of theſe indeed is not to be wondered at, conſidering the aukward poſtures in which girls ſit at many kinds of needle-work, and the delicate flexible ſtate of their bodies in the early periods of life.

Would mothers, inſtead of having their daughters inſtructed in many trifling accompliſhments employ them in plain work and houſewifery, and allow

low them ſufficient exerciſe in the open air, they would both make them more healthy mothers, and more uſeful members of ſociety. I am no enemy to genteel accompliſhments, but would have them only conſidered as ſecondary, and always diſregarded when they impair health.

Many people imagine it a great advantage for children to be early taught to earn their bread. This opinion is certainly right, provided they were ſo employed as not to hurt their health or growth; but, when theſe ſuffer, ſociety, inſtead of being benefited, is a real loſer by their labour. There are few employments, except ſedentary ones, by which children can earn a livelihood; and if they be ſet to theſe too ſoon, it ruins their conſtitutions. Thus, by gaining a few years from childhood, we generally loſe twice as many in the latter period of life, and even render the perſon leſs uſeful while he does live.

In order to be ſatisfied of the truth of this obſervation, we need only look into the great manufacturing towns, where we ſhall find a puny degenerate race of people, weak and ſickly all their lives, ſeldom exceeding the middle period of life; or if they do, being unfit for buſineſs they become a burden to ſociety. Thus arts and manufactures, though they may increaſe the riches of a country, are by no means favourable to the health of its inhabitants. Good policy would therefore require, that ſuch people as labour during life, ſhould not be ſet too early to work. Every perſon converſant in the breed of horſes, or other working animals, knows, that if they be ſet to hard labour too ſoon, they never will turn out to advantage. This is equally true with reſpect to the human ſpecies.—Weakly children ſhould always be put apprentices to trades which require their being moſtly out of doors;

doors; the contrary practice is, however, too common.

There are nevertheleſs various ways of employing young people without hurting their health. The eaſier parts of gardening, huſbandry, or any buſineſs carried on without doors, are moſt proper. Theſe are employments which moſt young people are fond of, and ſome parts of them may always be adapted to their age, taſte, and ſtrength*.

Such parents, however, as are under the neceſſity of employing their children within doors, ought to allow them ſufficient time for active diverſions without. This would both encourage them to do more work, and prevent their conſtitutions from being hurt.

Some imagine, that exerciſe within doors is ſufficient; but they are greatly miſtaken. One hour ſpent in running, or any other exerciſe without doors, is worth ten within. When children cannot go abroad, they may indeed be exerciſed at home. The beſt method of doing this, is to make them run about in a long room, or dance. This laſt kind of exerciſe, if not carried to exceſs, is of excellent ſervice to young people. It cheers the ſpirits, promotes perſpiration, ſtrengthens the limbs, &c. I know an eminent phyſician who uſed to ſay, that he made his children dance, inſtead of giving them phyſic. It were well if more people followed his example.

The COLD BATH may be conſidered as an aid to exerciſe. By it the body is braced and ſtrengthened; the circulation and ſecretions promoted; and,

* I have been told that in China, where the police is the beſt in the world, all the children are employed in the eaſier part of gardening and huſbandry; as weeding, gathering ſtones off the land, and ſuch like.

were it conducted with prudence, many diſeaſes, as the rickets, ſcrophula, &c. might thereby be prevented. The ancients, who took every method to render children hardy and robuſt, were no ſtrangers to the uſe of the cold bath; and, if we may credit report, the practice of immerſing children daily in cold water muſt have been very common among our anceſtors.

The greateſt objection to the uſe of the cold bath ariſes from the ſuperſtitious prejudices of nurſes. Theſe are often ſo ſtrong, that it is impoſſible to bring them to make a proper uſe of it. I have known ſome of them who would not dry a child's ſkin after bathing it, leſt it ſhould deſtroy the effect of the water. Others will even put cloths dipt in the water upon the child, and either put it to bed, or ſuffer it to go about in that condition. Some believe that the whole virtue of the water depends upon its being dedicated to a particular ſaint: while others place their confidence in a certain number of dips, as three, ſeven, nine, or the like; and the world could not perſuade them, if theſe do not ſucceed, to try it a little longer. Thus, by the whims of nurſes, children loſe the benefit of the cold bath, and the hopes of the phyſician from that medicine are often fruſtrated.

We ought not, however, entirely to ſet aſide the cold bath, becauſe ſome nurſes make a wrong uſe of it. Every child, when in health, ſhould at leaſt have its head and extremities daily waſhed in cold water. This is a partial uſe of the cold bath, and is better than none. In winter, this may ſuffice; but, in the warm ſeaſon, if a child be relaxed, or ſeem to have a tendency to the rickets or ſcrophula, its whole body ought to be frequently immerſed in cold water. Care, however, muſt be taken not to do this when the body is hot, or the ſtomach full. The

child

child ſhould be dipt only once at a time, ſhould be taken out immediately, and have its ſkin well rubbed with a dry cloth.

The bad Effects of unwholeſome Air upon Children.

Few things prove more deſtructive to children than confined or unwholeſome air. This is one reaſon why ſo few of thoſe infants, who are put into hoſpitals, or pariſh workhouſes, live. Theſe places are generally crowded with old, ſickly, and infirm people; by which means the air is rendered ſo extremely pernicious, that it becomes a poiſon to infants.

Want of wholeſome air is likewiſe deſtructive to many of the children born in great towns. There the poorer ſort of inhabitants live in low, dirty, confined houſes, to which the freſh air has hardly any acceſs. Though grown people, who are hardy and robuſt, may live in ſuch ſituations, yet they generally prove fatal to their offspring, few of whom arrive at maturity, and thoſe who do are weak and deformed. As ſuch people are not in a condition to carry their children abroad into the open air, we muſt lay our account with loſing the greater part of them. But the rich have not this excuſe. It is their buſineſs to ſee that their children be daily carried abroad, and that they be kept in the open air for a ſufficient time. This will always ſucceed better if the mother goes along with them. Servants are often negligent in theſe matters, and allow a child to ſit or lie on the damp ground, inſtead of leading or carrying it about. The mother certainly needs air as well as her children; and how can ſhe be better employed than in attending them?

A very

A very bad cuſtom prevails, of making children ſleep in ſmall apartments, or crowding two or three beds into one chamber. Inſtead of this, the nurſery ought always to be the largeſt and beſt aired room in the houſe. When children are confined in ſmall apartments, the air not only becomes unwholeſome, but the heat relaxes their ſolids, renders them delicate, and diſpoſes them to colds and many other diſorders. Nor is the cuſtom of wrapping them up too cloſe in cradles leſs pernicious. One would think that nurſes were afraid leſt children ſhould ſuffer by breathing free air, as many of them actually cover the child's face while aſleep, and others wrap a covering over the whole cradle, by which means the child is forced to breathe the ſame air over and over all the time it ſleeps. Cradles indeed are on many accounts hurtful to children, and it would be better if the uſe of them were totally laid aſide. *

A child is generally laid to ſleep with all its clothes on; and if a number of others are heaped above them, it muſt be overheated; by which means it cannot fail to catch cold on being taken out of the

* It is amazing how children eſcape ſuffocation, conſidering the manner in which they are often rolled up in flannels, &c. I lately attended an infant, whom I found muffled up over head and ears in many folds of flannel, though it was in the middle of June. I begged for a little free air to the poor babe; but though this indulgence was granted during my ſtay, I found it always on my return in the ſame ſituation. Death, as might be expected, ſoon freed the infant from all its miſeries; but it was not in my power to free the minds of its parents from thoſe prejudices which proved fatal to their child.

I was very lately called to ſee an infant which was ſaid to be expiring in convulſion fits. I deſired the mother to ſtrip the child, and wrap it in a looſe covering. It had no more convulſion fits.

cradle, and expoſed in the open air with only its uſual clothing, which is too frequently the caſe.

Children who are kept within doors all day, and ſleep all night in warm cloſe apartments, may, with great propriety, be compared to plants, nurſed in a hot-houſe, inſtead of the open air. Though ſuch plants may, by this means, be kept alive for ſome time, they will never arrive at that degree of ſtrength, vigour, and magnitude, which they would have acquired in the open air, nor would they be able to bear it afterwards, ſhould they be expoſed to it.

Children brought up in the country, who have been accuſtomed to open air, ſhould not be too early ſent to great towns, where it is confined and unwholeſome. This is frequently done with a view to forward their education, but proves very hurtful to their health. All ſchools and ſeminaries of learning ought, if poſſible, to be ſo ſituated as to have freſh, dry, wholeſome air, and ſhould never be too much crowded.

Without entering into a detail of the particular advantages of wholeſome air to children, or of the bad conſequences which proceed from the want of it, I ſhall only obſerve, that, of ſeveral thouſands of children which have been under my care, I do not remember one inſtance of a ſingle child who continued healthy in a cloſe confined ſituation; but have often known the moſt obſtinate diſeaſes cured by removing them from ſuch a ſituation to an open free air.

Of Nurſes.

It is not here intended to lay down rules for the choice of nurſes. This would be waſting time. Common ſenſe will direct every one to chuſe *a woman*

man who is healthy, and has plenty of milk. * If ſhe be at the ſame time cleanly, careful, and good-natured, ſhe can hardly fail to make a proper nurſe. After all, however, the only certain proof of a good nurſe is an healthy child upon her breaſt. But, as the miſconduct of nurſes often proves fatal to children, it will be of importance to point out a few of their moſt baneful errors, in order to rouſe the attention of parents, and to make them look more ſtrictly into the conduct of thoſe to whom they commit the care of their infant offspring.

Though it admits of ſome exceptions, yet we may lay it down as a general rule, *that every woman who nurſes for hire ſhould be carefully looked after, otherwiſe ſhe will not do her duty.* For this reaſon parents ought always to have their children nurſed under their own eye, if poſſible; and where this cannot be done, they ſhould be extremely circumſpect in the choice of thoſe perſons to whom they intruſt them. It is folly to imagine that any woman, who abandons her own child to ſuckle another for the ſake of gain, ſhould feel all the affections of a parent towards her nurſling; yet ſo neceſſary are thoſe affections in a nurſe, that, but for them, the human race would ſoon be extinct.

One of the moſt common faults of thoſe who nurſe for hire, is to doſe children with ſtupefactives, or ſuch things as lull them aſleep. An indolent nurſe, who does not give a child ſufficient exerciſe in the open air to make it ſleep, and does not chuſe to be diſturbed by it in the night, will ſeldom fail to procure for it a doſe of laudanum, diacodium, ſaffron, or what anſwers the ſame pur-

* I have often known people ſo impoſed upon, as to give an infant to a nurſe to be ſuckled, who had not one drop of milk in her breaſt.

poſe, a doſe of ſpirits, or other ſtrong liquors. Theſe, though they be certain poiſon to infants, are every day adminiſtered by many who bear the character of very good nurſes. *

A nurſe who has not milk enough is apt to imagine that this defect may be ſupplied by giving the child wines, cordial waters, or other ſtrong liquors. This is an egregious miſtake. The only thing that has any chance to ſupply the place of the nurſe's milk, muſt be ſomewhat nearly of the ſame quality, as cow's milk, aſs's milk, or beef tea, with good bread. It never can be done by the help of ſtrong liquors. Theſe, inſtead of nouriſhing an infant, never fail to produce the contrary effect.

Children are often hurt by nurſes ſuffering them to cry long and vehemently. This ſtrains their tender bodies, and frequently occaſions ruptures, inflammations of the throat, lungs, &c. A child never continues to cry long without ſome cauſe, which might always be diſcovered by proper attention; and the nurſe who can hear an infant cry till it has almoſt ſpent itſelf, without endeavouring to pleaſe it, muſt be cruel indeed, and is unworthy to be entruſted with the care of an human creature.

Nurſes who deal much in medicine are always to be ſuſpected. They truſt to it, and neglect their duty. I never knew a good nurſe who had her Godfrey's cordials, Daffy's elixirs, &c. at hand. Such generally imagine, that a doſe of medicine will make up for all defects in food, air, exerciſe, and cleanlineſs. By errors of this kind, I will venture to ſay, that one half of the children who die annually in London, loſe their lives.

* If a mother, on viſiting her child at nurſe, find it always aſleep, I would adviſe her to remove it immediately, otherwiſe it will ſoon ſleep its laſt.

Allowing

Allowing children to continue long wet, is another very pernicious cuſtom of indolent nurſes. This is not only diſagreeable, but it galls and frets the infant, and, by relaxing the ſolids, occaſions ſcrophulas, rickets, and other diſeaſes. A dirty nurſe is always to be ſuſpected.

Nature often attempts to free the bodies of children from bad humours, by throwing them upon the ſkin: by this means fevers and other diſeaſes are prevented. Nurſes are apt to miſtake ſuch critical eruptions for an itch, or ſome other infectious diſorder. Accordingly they take every method to drive them in. In this way many children loſe their lives; and no wonder, as Nature is oppoſed in the very method ſhe takes to relieve them. It ought to be a rule, which every nurſe ſhould obſerve, never to ſtop any eruption without proper advice, or being well aſſured that it is not of a critical nature. At any rate, it is never to be done without previous evacuations.

Looſe ſtools is another method by which Nature often prevents or carries off the diſeaſes of infants. If theſe proceed too far, no doubt they ought to be checked; but this is never to be done without the greateſt caution. Nurſes, upon the firſt appearance of looſe ſtools, frequently fly to the uſe of aſtringents, or ſuch things as bind the body. Hence inflammatory fevers, and other fatal diſeaſes, are occaſioned. A doſe of rhubarb, a gentle vomit, or ſome other evacuation, ſhould generally precede the uſe of aſtringent medicines.

One of the greateſt faults of nurſes is, concealing the diſeaſes of children from their parents. This they are extremely ready to do, eſpecially when the diſeaſe is the effect of their own negligence. Many inſtances might be given of perſons who have been rendered lame for life by a fall from their nurſe's

arms, which ſhe, through fear, concealed till the misfortune was paſt cure. Every parent who intruſts a nurſe with the care of a child, ought to give her the ſtricteſt charge not to conceal the moſt trifling diſorder or misfortune that may befal it.

We can ſee no reaſon why a nurſe, who conceals any misfortune which happens to a child under her care, till it loſes its life or limbs, ſhould not be puniſhed. A few examples of this would ſave the lives of many infants; but as there is little reaſon to expect that it ever will be the caſe, we would earneſtly recommend it to all parents to look carefully after their children, and not to truſt ſo valuable a treaſure entirely to the hands of an hireling.

No perſon ought to imagine theſe things unworthy of his attention. On the proper management of children depend not only their health and uſefulneſs in life, but likewiſe the ſafety and proſperity of the ſtate to which they belong. Effeminacy ever will prove the ruin of any ſtate where it prevails; and, when its foundations are laid in infancy, it can never afterwards be wholly eradicated. Parents who love their offspring, and wiſh well to their country, ought therefore, in the management of their children, to avoid every thing that may have a tendency to make them weak or effeminate, and to take every method in their power to render their conſtitutions ſtrong and hardy.

———By arts like theſe
Laconia nurs'd of old her hardy ſons;
And Rome's unconquer'd legions urg'd their way,
Unhurt, thro' every toil and every clime. *

* Armſtrong.

CHAP.

CHAP. II.

Of the Laborious, the Sedentary, and the Studious.

THAT men are expoſed to particular diſeaſes from the occupations which they follow, is a fact well known; but to remedy this evil is a matter of ſome difficulty. Moſt people are under the neceſſity of following thoſe employments to which they have been bred, whether they be favourable to health or not. For this reaſon, inſtead of inveighing, in a general way, as ſome authors have done, againſt thoſe occupations which are hurtful to health, we ſhall endeavour to point out the circumſtances in each of them from which the danger chiefly ariſes, and to propoſe the moſt rational methods of preſerving it.

Chemiſts, founders, forgers, glaſs-makers, and ſeveral other artiſts, are hurt by the unwholeſome air which they are obliged to breathe. This air is not only loaded with the noxious exhalations ariſing from metals and minerals, but is ſo charged with phlogiſton as to be rendered unfit for expanding the lungs ſufficiently, and anſwering the other important purpoſes of reſpiration. Hence proceed aſthmas, coughs and conſumptions of the lungs, ſo incident to perſons who follow theſe employments.

To prevent ſuch conſequences, as far as poſſible, the places where theſe occupations are carried on, ought to be conſtructed in ſuch a manner as to diſcharge the ſmoke and other exhalations, and admit a free current of freſh air. Such artiſts ought never

to continue too long at work; and when they give over, they ſhould ſuffer themſelves to cool gradually, and put on their clothes before they go into the open air. They ought never to drink large quantities of cold, weak, or watery liquors, while their bodies are hot, nor to indulge in raw fruits, ſallads, or any thing that is cold on the ſtomach. *

Miners, and all who work under ground, are likewiſe hurt by unwholeſome air. The air, by its ſtagnation in deep mines, not only loſes its proper ſpring and other qualities neceſſary for reſpiration, but is often loaded with ſuch noxious exhalations as to become a moſt deadly poiſon.

The two kinds of air which prove moſt deſtructive to miners, are what they call the *fire damp*, and the *choke damp*. In both caſes the air becomes a poiſon. The danger from the former may be obviated by making it explode before it accumulates in too great quantities; and the latter may be generally carried off by promoting a free circulation of air in the mine.

Miners are not only hurt by unwholeſome air, but likewiſe by the particles of metal which adhere to their ſkin, clothes, &c. Theſe are abſorbed, or taken up into the body, and occaſion palſies, vertigoes, and other nervous affections, which often prove fatal. Fallopius obſerves, that thoſe who work in mines of mercury ſeldom live above three or four years. Lead, and ſeveral other metals, are likewiſe very pernicious to the health.

Miners ought never to go to work faſting, nor to continue too long at work. Their food ought to be nouriſhing, and their liquor generous: nothing more certainly hurts them than living too low.

* When perſons heated with labour have drunk cold liquor they ought to continue at work for ſome time after.

They

They ſhould by all means avoid coſtiveneſs. This may either be done by chewing a little rhubarb, or taking a ſufficient quantity of ſallad oil. Oil not only opens the body, but ſheaths and defends the inteſtines from the ill effects of the metals. All who work in mines or metals ought to waſh carefully, and to change their clothes as ſoon as they give over working. Nothing would tend more to preſerve the health of ſuch people than a ſtrict, and almoſt religious regard to cleanlineſs.

Plumbers, painters, gilders, ſmelters, makers of white lead, and many others who work in metals, are liable to the ſame diſeaſes as miners, and ought to obſerve the ſome directions for avoiding them.

Tallow-chandlers, boilers of oil, and all who work in putrid animal ſubſtances, are likewiſe liable to ſuffer from the unwholeſome ſmells or effluvia of theſe bodies. They ought to pay the ſame regard to cleanlineſs as miners; and when they are affected with nauſea, ſickneſs, or indigeſtion, we would adviſe them to take a vomit or a gentle purge. Such ſubſtances ought always to be manufactured as ſoon as poſſible. When long kept, they not only become unwholeſome to thoſe who manufacture them, but likewiſe to people who live in the neighbourhood.

It would greatly exceed the limits of this part of our ſubject, to ſpecify the diſeaſes peculiar to perſons of every occupation; we ſhall therefore conſider mankind under the general claſſes of *Laborious*, *Sedentary*, and *Studious*.

THE LABORIOUS.

Though thoſe who follow laborious employments are in general the moſt healthy of mankind, yet the nature of their occupations, and the places where they

they are carried on, expoſe them more particularly to ſome diſeaſes. Huſbandmen, for example, are expoſed to all the viciſſitudes of the weather, which, in this country, are often very great and ſudden, and occaſion colds, coughs, quinſies, rheumatiſms, fevers, and other acute diſorders. They are likewiſe forced to work hard, and often to carry burdens above their ſtrength, which, by overſtraining the veſſels, occaſion aſthmas, ruptures, pleuriſies, &c.

Thoſe who labour without doors are often afflicted with intermitting fevers or agues, occaſioned by the frequent viciſſitudes of heat and cold, poor living, bad water, ſitting or lying on the damp ground, evening dews, night air, &c. to which they are frequently expoſed.

Such as bear heavy burdens, as porters, labourers, &c. are obliged to draw in the air with much greater force, and alſo to keep their lungs diſtended with more violence than is neceſſary for common reſpiration: by this means the tender veſſels of the lungs are overſtretched, and often burſt, inſomuch that a ſpitting of blood or fever enſues. Hippocrates mentions an inſtance to this purpoſe, of a man, who, upon a wager, carried an aſs; but was ſoon after ſeized with a fever, a vomiting of blood, and a rupture.

Carrying heavy burdens is generally the effect of mere lazineſs, which prompts people to do at once what ſhould be done at twice. Sometimes it proceeds from vanity or emulation. Hence it is, that the ſtrongeſt men are moſt commonly hurt by heavy burdens, hard labour, or feats of activity. It is rare to find one who boaſts of his ſtrength without a rupture, a ſpitting of blood, or ſome other diſeaſe, which he reaps as the fruit of his folly. One would imagine, the daily inſtances we have, of the fatal effects

effects of carrying great weights, running, wreſtling, and the like, would be ſufficient to prevent ſuch practices.

There are indeed ſome employments which neceſſarily require a great exertion of ſtrength, as porters, blackſmiths, carpenters, &c. They ſhould never exert their ſtrength to the utmoſt, nor work too long. When the muſcles are violently ſtrained, frequent reſt is neceſſary, in order that they may recover their tone; without this, the ſtrength and conſtitution will ſoon be worn out, and a premature old age be induced.

The eryſipelas, or St. Anthony's fire, is a diſeaſe very incident to the laborious. It is occaſioned by whatever gives a ſudden check to the perſpiration, as drinking cold water when the body is warm, wet feet, keeping on wet clothes, ſitting or lying on the damp ground, &c. It is impoſſible for thoſe who labour without doors always to guard againſt theſe inconveniences; but it is known from experience, that their ill conſequences might often be prevented by proper care.

The iliac paſſion, the cholic, and other complaints of the bowels, are often occaſioned by the ſame cauſes as the eryſipelas; but they may likewiſe proceed from flatulent and indigeſtible food. Labourers frequently eat unfermented bread, made of peas, beans, rye, and other windy ingredients. They alſo devour great quantities of unripe fruits, baked, ſtewed, or raw, with various kinds of roots and herbs, upon which they often drink ſour milk, ſtale ſmall beer, or the like. Such a mixture cannot fail to fill the bowels with wind, and occaſion diſeaſes of thoſe parts.

Inflammations, whitloes, and other diſeaſes of the extremities, are likewiſe common among thoſe who labour without doors. Theſe diſeaſes are often attributed to venom, or ſome kind of poiſon; but they gene-

generally proceed either from ſudden heat after cold, or the contrary. When labourers, milk-maids, &c. come from the field, cold or wet, they run to the fire, and often plunge their hands in warm water, by which means the blood and other humours in thoſe parts are ſuddenly expanded, and, the veſſels not yielding ſo quickly, a ſtrangulation happens, and an inflammation or a mortification enſues.

When ſuch perſons come home cold, they ought to keep at a diſtance from the fire for ſome time, to waſh their hands in cold water, and to rub them well with a dry cloth. It ſometimes happens, that people are ſo benumbed with cold, as to be quite deprived of the uſe of their limbs. In this caſe, the only remedy is to rub the parts affected with ſnow, or where it cannot be had, with cold water. If they be held near the fire, or plunged into warm water, a mortification will generally enſue.

Labourers in the hot ſeaſon are apt to lie down and ſleep in the ſun. This practice is ſo dangerous, that they often wake in a burning fever. Theſe ardent fevers, which prove ſo fatal about the end of ſummer and beginning of autumn, are frequently occaſioned by this means. When labourers leave off work, which they ought always to do during the heat of the day, they ſhould go home, or, at leaſt, get under ſome cover, where they may repoſe themſelves in ſafety.

Many people follow their employments in the fields from morning till night, without eating any thing. This cannot fail to hurt their health. However homely their fare be, they ought to have it at regular times; and the harder they work, the more frequently they ſhould eat. If the humours be not frequently repleniſhed with freſh nouriſhment, they ſoon produce fevers of the very worſt kind.

Many

Many peaſants are extremely careleſs with reſpect to what they eat or drink, and often, through mere indolence, uſe unwholeſome food, when they might for the ſame expence have that which is wholeſome. In ſome parts of Britain, the peaſants are too careleſs even to take the trouble of dreſſing their own victuals. Such people would live upon one meal a-day in indolence, rather than labour, though it were to procure them the greateſt affluence.

Fevers of a very bad kind are often occaſioned among labourers by *poor living*. When the body is not ſufficiently nouriſhed the humours become vitiated, and the ſolids weak; from whence the moſt fatal conſequences enſue. *Poor living* is likewiſe productive of many of thoſe cutaneous diſeaſes ſo frequent among the lower claſs of people. It is remarkable that cattle, when pinched in their food, are generally affected with diſeaſes of the ſkin, which ſeldom fail to diſappear, when they are put upon a good paſture. This ſhews how much a good ſtate of the humours depends upon a ſufficient quantity of proper nouriſhment.

Poverty not only occaſions, but aggravates, many of the diſeaſes of the laborious. Few of them have much foreſight; and, if they had, it is ſeldom in their power to ſave any thing. They are glad to make a ſhift to live from day to day; and, when any diſeaſe overtakes them, they are miſerable indeed. Here the god-like virtue of charity ought always to exert itſelf. To relieve the induſtrious poor in diſtreſs, is ſurely a moſt exalted act of religion and humanity. They alone, who are witneſſes of thoſe ſcenes of calamity, can form an idea of what numbers periſh in diſeaſes, for want of proper aſſiſtance, and even for want of the neceſſaries of life.

Labourers are often hurt by a fooliſh emulation, which prompts them to vie with one another, till they

they overheat themſelves to ſuch a degree as to occaſion a fever, or even to drop down dead. Such as wantonly throw away their lives in this manner, deſerve to be looked upon in no better light than ſelf-murderers.

Sailors may alſo be numbered among the laborious. They undergo great hardſhips from change of climate, the violence of weather, hard labour, bad proviſions, &c. Sailors are of ſo great importance, that too much pains can never be beſtowed in pointing out the means of preſerving their lives.

One great ſource of the diſeaſes of ſea-faring people is exceſs. When they get on ſhore, after having been long at ſea, without regard to the climate, or their own conſtitutions, they plunge headlong into all manner of riot, and often perſiſt till a fever puts an end to their lives. Thus intemperance, and not the climate, is often the cauſe why ſo many of our brave ſailors die on foreign coaſts. Such people ought not to live too low; but they will find moderation the beſt defence againſt fevers, and many other maladies.

Sailors, when on duty, cannot avoid ſometimes getting wet. When this happens they ſhould change their clothes as ſoon as they are relieved, and take every method to reſtore the perſpiration. They ſhould not, in this caſe, make too free with ſpirits or other ſtrong liquors, but ſhould rather drink warm teas, and go immediately to bed, where a ſound ſleep and a gentle ſweat would ſet all to rights.

But the health of ſailors ſuffers moſt from unwholeſome food. The conſtant uſe of ſalted proviſions vitiates their humours, and occaſions the ſcurvy, and other obſtinate maladies. It is no eaſy matter to prevent this diſeaſe in long voyages; yet much might be done towards effecting ſo deſirable an end, were

were due pains beſtowed for that purpoſe. For example, various roots, greens, and fruits might be kept a long time at ſea, as onions, potatoes, cabbages, lemons, oranges, tamarinds, apples, &c. When fruits cannot be kept, the juices of them, either freſh or fermented, may. With theſe all the drink, and even the food of the ſhip's company, ought to be acidulated in long voyages.

Stale bread and beer likewiſe contribute to vitiate the humours. Flour will keep for a long time on board, of which freſh bread might frequently be made. Malt too might be kept and infuſed with boiling water at any time. This liquor, when drank even in form of wort, is very wholeſome, and is found to be an antidote againſt the ſcurvy. Small wines and cyder might likewiſe be plentifully laid in; and ſhould they turn ſour, they would ſtill be uſeful as vinegar. Vinegar is a great antidote againſt diſeaſes, and ſhould be uſed by all travellers, eſpecially at ſea. It may either be mixed with the water they drink, or taken in their food.

Such animals as can be kept alive, ought likewiſe to be carried on board, as hens, ducks, pigs, &c. Freſh broths made of portable ſoup, and puddings made of peas, or other vegetables ought to be uſed plentifully. Many other things will readily occur to people converſant in theſe matters, which would tend to preſerve the health of that brave and uſeful ſet of men. *

* The celebrated Captain Cook, has ſhewn how far, by proper care and attention, the diſeaſes formerly ſo fatal to ſeamen may be prevented. In a voyage of three years and eighteen days, during which he was expoſed to every climate, from the 52° north to the 71° of ſouth latitude, of one hundred and eighteen men compoſing the ſhip's company, he loſt only one, who died of a *phthiſis pulmonalis*. The principal means he uſed were, to preſerve a ſtrict attention to cleanlineſs, to procure abundance

We have reaſon to believe, if due attention were paid to the diet, air, clothing, and above all things to the cleanlineſs of ſea-faring people, they would be the moſt healthy ſet of men in the world; but when theſe are neglected, the very reverſe will happen.

The beſt *medical antidote* that we can recommend to ſailors or ſoldiers, on foreign coaſts, eſpecially where dampneſs prevails, is the Peruvian bark. This will often prevent fevers, and other fatal diſeaſes. About a drachm of it may be chewed every day; or if this ſhould prove diſagreeable, an ounce of bark, with half an ounce of orange peel, and two drachms of ſnake-root coarſely powdered, may be infuſed for two or three days in an Engliſh quart of brandy, and half a wine glaſs of it taken twice or thrice a-day, when the ſtomach is empty. This has been found to be an excellent antidote againſt fluxes, putrid, intermitting, and other fevers, in unhealthy climates. It is not material in what form this medicine is taken. It may either be infuſed in water, wine, or ſpirits, as recommended above, or made into an electuary with ſyrup of lemons, oranges, or the like.

THE SEDENTARY.

Though nothing can be more contrary to the nature of man than a ſedentary life, yet this claſs comprehends by far the greater part of the ſpecies. Almoſt the whole female world, and in manufacturing countries, the major part of the males, may be reckoned ſedentary. *

abundance of vegetables and freſh proviſions, eſpecially good water, and to allow his people ſufficient time for reſt.

* The appellation of ſedentary has generally been given only to the ſtudious; we can ſee no reaſon, however, for reſtricting it to them alone. Many artificers may, with as much propriety, be

Agriculture, the firſt and moſt healthful of all employments, is now followed by few who are able to carry on any other buſineſs. But thoſe who imagine, that the culture of the earth is not ſufficient to employ all its inhabitants, are greatly miſtaken. An ancient Roman, we are told, could maintain his family from the produce of one acre of ground. So might a modern Briton, if he would be contented to live like a Roman. This ſhews what an immenſe increaſe of inhabitants Britain might admit of, and all of them live by the culture of the ground.

Agriculture is the great ſource of domeſtic riches. Where it is neglected, whatever wealth may be imported from abroad, poverty and miſery will abound at home. Such is, and ever will be, the fluctuating ſtate of trade and manufactures, that thouſands of people may be in full employment to-day, and in beggary to-morrow. This can never happen to thoſe who cultivate the ground. They can eat the fruit of their labour, and can always, by induſtry obtain, at leaſt, the neceſſaries of life.

Though ſedentary employments are neceſſary, yet there ſeems to be no reaſon why any perſon ſhould be confined for life to theſe alone. Were ſuch employments intermixed with the more active and laborious, they would never do hurt. It is conſtant confinement that ruins the health. A man may not be hurt by ſitting five or ſix hours a-day; but if he is obliged to ſit ten or twelve, he will ſoon become diſeaſed.

But it is not want of exerciſe alone which hurts ſedentary people; they likewiſe ſuffer from the confined air which they breathe. It is very common to

be denominated ſedentary as the ſtudious, with this particular diſadvantage, that they are often obliged to ſit in very awkward poſtures, which the ſtudious need not do, unleſs they pleaſe.

ſee ten or a dozen taylors,* or ſtaymakers, for example, crowded into one ſmall apartment, where there is hardly room for one perſon to breathe freely. In this ſituation they generally continue for many hours at a time, often with the addition of ſeveral candles, which tend likewiſe to waſte the air, and render it leſs fit for reſpiration. Air that is breathed repeatedly, becomes unfit for expanding the lungs. This is one cauſe of the phthiſical coughs, and other complaints of the breaſt, ſo incident to ſedentary artificers.

Even the perſpiration from a great number of perſons pent up together, renders the air unwholeſome. The danger from this quarter will be greatly increaſed, if any one of them happens to have bad lungs, or to be otherwiſe diſeaſed. Thoſe who ſit near him, being forced to breathe the ſame air, can hardly fail to be infected. It would be a rare thing, however, to find a dozen of ſedentary people all in good health. The danger of crowding them together, muſt therefore be evident to every one.

Many of thoſe who follow ſedentary employments are conſtantly in a bending poſture, as ſhoemakers, taylors, cutlers, &c. Such a ſituation is extremely hurtful. A bending poſture obſtructs all the vital motions, and of courſe muſt deſtroy the health. Accordingly we find ſuch artificers generally complaining of indigeſtions, flatulencies, head-achs, pains of the breaſt, &c.

* A perſon of obſervation in that line of life told me, that moſt taylors die of conſumptions; which he attributed chiefly to the unfavourable poſtures in which they ſit, and the unwholeſomeneſs of thoſe places, where their buſineſs is carried on. If more attention was not paid to profit, than to the preſervation of human lives, this evil might be eaſily remedied; but, while maſters mind only their own intereſt, nothing will be done for the ſafety of their ſervants.

The

The aliment of ſedentary people, inſtead of being puſhed forwards, by an erect poſture, and the action of the muſcles, is in a manner confined to the bowels. Hence indigeſtions, coſtiveneſs, wind, and other hypochondriacal affections, the conſtant companions of the ſedentary. Indeed, none of the excretions can be duly performed, where exerciſe is wanting; and when the matter, which ought to be diſcharged in this way, is retained too long in the body, it muſt have bad effects, as it is again taken up into the maſs of humors.

A bending poſture is likewiſe hurtful to the lungs. When this organ is compreſſed, the air cannot have free acceſs into all its parts, ſo as to expand them properly. Hence tubercles, adheſions, &c. are formed, which often end in conſumptions. Beſides, the proper action of the lungs being abſolutely neceſſary for making good blood, when that organ fails, the humors ſoon become univerſally depraved, and the whole conſtitution goes to wreck.

Sedentary artificers are not only hurt by preſſure on the bowels, but alſo on the inferior extremities, which obſtructs the circulation in theſe parts, and renders them weak and feeble. Thus taylors, ſhoemakers, &c. frequently loſe the uſe of their legs altogether: beſides, the blood and humours are, by ſtagnation, vitiated, and the perſpiration is obſtructed: from whence proceed the ſcab, ulcerous ſores, foul blotches, and other cutaneous diſeaſes, ſo common among ſedentary artificers.

A bad figure of body is a very common conſequence of cloſe application to ſedentary employments. The ſpine, for example, by being continually bent, puts on a crooked ſhape, and generally remains ſo ever after. But a bad figure of body, has already been obſerved to be hurtful to health, as the vital functions are thereby impeded.

A ſedentary life ſeldom fails to occaſion an univerſal relaxation of the ſolids. This is the great ſource from whence moſt of the diſeaſes of ſedentary people flow. The ſcrophula, conſumption, hyſterics, and nervous diſeaſes, now ſo common, were very little known in Great Britain, before ſedentary artificers became ſo numerous: and they are very little known ſtill among ſuch of our people as follow active employments without doors, though in great towns, at leaſt two-thirds of the inhabitants are afflicted with them.

It is very difficult to remedy thoſe evils, becauſe many who have been accuſtomed to a ſedentary life, like ricketty children, loſe all inclination for exerciſe; we ſhall, however, throw out a few hints, with reſpect to the moſt likely means for preſerving the health of this uſeful ſet of people, which ſome of them, we hope, will be wiſe enough to take.

It has been already obſerved, that ſedentary artificers are often hurt by their bending poſture. They ought, therefore, to ſtand or ſit as erect as the nature of their employments will permit. They ſhould likewiſe change their poſture frequently, and ſhould never ſit too long at a time, but leave off work, and walk, ride, run, or do any thing that will promote the exerciſe of the vital functions.

Sedentary artificers are generally allowed too little time for exerciſe; yet, ſhort as it is, they ſeldom employ it properly. A journeyman taylor, or weaver, for example, inſtead of walking abroad for exerciſe and freſh air, at his hours of leiſure, chuſes often to ſpend them in a public houſe, or in playing at ſome ſedentary game, by which he generally loſes both his time and his money.

The awkward poſtures in which many ſedentary artificers work, ſeem rather to be the effect of cuſtom than neceſſity. For example, a table might

ſurely

ſurely be contrived for ten or a dozen taylors to ſit round, with liberty for their legs either to hang down, or reſt upon a foot-board, as they ſhould chuſe. A place might likewiſe be cut out for each perſon, in ſuch a manner, that he might ſit as conveniently for working as in the preſent mode of ſitting croſs-legged.

All ſedentary artificers ought to pay the moſt religious regard to cleanlineſs. Both their ſituation and occupations, render this highly neceſſary. Nothing would contribute more to preſerve their health, than a ſtrict attention to it; and ſuch of them as neglect it, not only run the hazard of loſing health, but of becoming a nuiſance to their neighbours.

Sedentary people ought to avoid food that is windy, or hard of digeſtion, and ſhould pay the ſtricteſt regard to ſobriety. A perſon who works hard without doors, will ſooner throw off a debauch; but one who ſits, has by no means an equal chance. Hence it often happens, that ſedentary people are ſeized with fevers after hard drinking. When ſuch perſons feel their ſpirits low, inſtead of running to the tavern for relief, they ſhould ride or walk in the fields. This would remove the complaint more effectually than ſtrong liquor, and would never hurt the conſtitution.

Inſtead of multiplying rules for preſerving the health of the ſedentary, we ſhall recommend to them the following general plan, viz. That every perſon who follows a ſedentary employment ſhould cultivate a piece of ground with his own hands. This he might dig, plant, ſow, and weed, at leiſure hours, ſo as to make it both an exerciſe and amuſement, while it produced many of the neceſſaries of life. After working an hour in a garden, a man will return with more keenneſs to his employment within doors, than if he had been all the while idle.

Labouring the ground is every way conducive to health. It not only gives exercise to every part of the body, but the very smell of the earth and fresh herbs revives and cheers the spirits, whilst the perpetual prospect of something coming to maturity, delights and entertains the mind. We are so formed as to be always pleased with somewhat in prospect, however distant, or however trivial. Hence the happiness that most men feel in planting, sowing, building, &c. These seem to have been the chief employments of the more early ages: and, when kings and conquerors cultivated the ground, there is reason to believe, that they knew as well wherein true happiness consisted as we do.

It may seem romantic to recommend gardening to manufacturers in great towns; but observation proves that the plan is very practicable. In the town of Sheffield, in Yorkshire, where the great iron manufactory is carried on, there is hardly a journeyman cutler, who does not possess a piece of ground, which he cultivates as a garden. This practice has many salutary effects. It not only induces these people to take exercise without doors, but also to eat many greens, roots, &c. of their own growth, which they would never think of purchasing. There can be no reason why manufacturers in any other town in Great Britain, should not follow the same plan. It is indeed to be regretted, that in such a place as London, a plan of this kind is not practicable; yet, even there, sedentary artificers may find opportunities of taking air and exercise, if they chuse to embrace them.

Mechanics are too much inclined to crowd into great towns. The situation may have some advantages; but it has likewise many disadvantages. All mechanics who live in the country, have it in their power to cultivate a piece of ground; which indeed

moſt of them do. This not only gives them exerciſe, but enables them to live more comfortably. So far, at leaſt, as my obſervation extends, mechanics who live in the country are far more happy than thoſe in great towns. They enjoy better health, live in greater affluence, and ſeldom fail to rear a healthy and numerous offspring.

In a word, exerciſe without doors, in one ſhape or another, is abſolutely neceſſary to health. Thoſe who neglect it, though they may for a while drag out life, can hardly be ſaid to enjoy it. Weak and effeminate, they languiſh for a few years, and ſoon drop into an untimely grave.

THE STUDIOUS.

Intenſe thinking is ſo deſtructive to health, that few inſtances can be produced of ſtudious perſons who are ſtrong and healthy. Hard ſtudy always implies a ſedentary life; and when intenſe thinking is joined to the want of exerciſe, the conſequences muſt be bad. We have frequently known even a few months of cloſe application to ſtudy, ruin an excellent conſtitution, by inducing a train of nervous complaints, which could never be removed. Man is evidently not formed for continual thought, more than for perpetual action, and would be as ſoon worn out by the one as by the other.

So great is the power of the mind over the body, that, by its influence, the whole vital motions may be accelerated or retarded, to almoſt any degree. Thus cheerfulneſs and mirth quicken the circulation, and promote all the ſecretions; whereas ſadneſs and profound thought, never fail to retard them. Hence it would appear, that even a degree of thoughtleſſneſs is neceſſary to health. Indeed, the perpetual thinker ſeldom enjoys either health or

ſpirits; while the perſon, who can hardly be ſaid to think at all, generally enjoys both.

Perpetual thinkers, as they are called, ſeldom think long. In a few years they generally become quite ſtupid, and exhibit a melancholy proof how readily the greateſt bleſſings may be abuſed. Thinking, like every thing elſe, when carried to extreme, becomes a vice: nor can any thing afford a greater proof of wiſdom, than for a man frequently and ſeaſonably to unbend his mind. This may generally be done by mixing in cheerful company, active diverſions, or the like.

Inſtead of attempting to inveſtigate the nature of that connection which ſubſiſts between the mind and body, or to inquire into the manner in which they mutually affect each other, we ſhall only mention thoſe diſeaſes to which the learned are more peculiarly liable, and endeavour to point out the means of avoiding them.

Studious perſons are very ſubject to the gout. This painful diſeaſe in a great meaſure proceeds from indigeſtion, and an obſtructed perſpiration. It is impoſſible that the man who ſits from morning till night ſhould either digeſt his food, or have any of the ſecretions in due quantity. But when that matter, which ſhould be thrown off by the ſkin, is retained in the body, and the humors are not duly prepared, diſeaſes muſt enſue.

The ſtudious are likewiſe very liable to the ſtone and gravel. Exerciſe greatly promotes both the ſecretion and diſcharge of urine; conſequently a ſedentary life muſt have the contrary effect. Any one may be ſatisfied of this by obſerving, that he paſſes much more urine by day than in the night, and alſo when he walks or rides, than when he ſits.

The circulation in the liver being ſlow, obſtructions in that organ can hardly fail to be the conſequence

of

of inactivity. Hence ſedentary people are frequently afflicted with ſchirrous livers. But the proper ſecretion and diſcharge of the bile is ſo neceſſary a part of the animal œconomy, that where theſe are not duly performed, the health muſt ſoon be impaired. Jaundice, indigeſtion, loſs of appetite, and a waſting of the whole body, ſeldom fail to be the conſequences of a vitiated ſtate of the liver, or obſtructions of the bile.

Few diſeaſes prove more fatal to the ſtudious than conſumptions of the lungs. It has already been obſerved, that this organ cannot be duly expanded in thoſe who do not take proper exerciſe; and where that is the caſe, obſtructions and adheſions will enſue. Not only want of exerciſe, but the poſture in which ſtudious perſons generally ſit, is very hurtful to the lungs. Thoſe who read or write much are ready to contract a habit of bending forwards, and often preſs with their breaſt upon a table or bench. This poſture cannot fail to hurt the lungs.

The functions of the heart may likewiſe by this means be injured. I remember to have ſeen a man opened, whoſe pericardium adhered to the breaſt-bone in ſuch a manner as to obſtruct the motion of the heart, and occaſion his death. The only probable cauſe that could be aſſigned for this ſingular ſymptom was, that the man, whoſe buſineſs was writing, uſed conſtantly to ſit in a bending poſture, with his breaſt preſſing upon the edge of a plain table.

No perſon can enjoy health who does not properly digeſt his food. But intenſe thinking and inactivity never fail to weaken the powers of digeſtion. Hence the humors become crude and vitiated, the ſolids weak and relaxed, and the whole conſtitution goes to ruin.

Long

Long and intenſe thinking often occaſions grievous head-achs, which bring on vertigoes, apoplexies, palſies, and other fatal diſorders. The beſt way to prevent theſe is, never to ſtudy too long at one time, and to keep the body regular, either by proper food, or taking frequently a little of ſome opening medicine.

Thoſe who read or write much are often afflicted with ſore eyes. Studying by candle-light is peculiarly hurtful to the ſight. This ought to be practiſed as ſeldom as poſſible. When it is unavoidable, the eyes ſhould be ſhaded, and the head ſhould not be held too low. When the eyes are weak or painful, they ſhould be bathed every night and morning in cold water, to which a little brandy may be added.

It has already been obſerved, that the excretions are very defective in the ſtudious. The dropſy is often occaſioned by the retention of thoſe humors which ought to be carried off in this way. Any perſon may obſerve, that ſitting makes his legs ſwell, and that this goes off by exerciſe; which clearly points out the method of prevention.

Fevers, eſpecially of the nervous kind, are often the effect of ſtudy. Nothing affects the nerves ſo much as intenſe thought. It in a manner unhinges the whole human frame, and not only hurts the vital motions, but diſorders the mind itſelf. Hence a delirium, melancholy, and even madneſs, are often the effects of cloſe application to ſtudy. In fine, there is no diſeaſe which can proceed either from a bad ſtate of the humors, a defect of the uſual ſecretions, or a debility of the nervous ſyſtem, which may not be induced by intenſe thinking.

But the moſt afflicting of all the diſeaſes which attack the ſtudious is the hypochondriac. This diſeaſe ſeldom fails to be the companion of deep thought.

It

It may rather be called a complication of maladies than a ſingle one. To what a wretched condition are the beſt of men often reduced by it! Their ſtrength and appetite fail; a perpetual gloom hangs over their minds; they live in the conſtant dread of death, and are continually in ſearch of relief from medicine, where, alas! it is not to be found. Thoſe who labour under this diſorder, though they are often made the ſubject of ridicule, juſtly claim our higheſt ſympathy and compaſſion.

Hardly any thing can be more prepoſterous than for a perſon to make ſtudy his ſole buſineſs. A mere ſtudent is ſeldom an uſeful member of ſociety. He often neglects the moſt important duties of life, in order to purſue ſtudies of a very trifling nature. Indeed it rarely happens, that any uſeful invention is the effect of mere ſtudy. The farther men dive into profound reſearches, they generally deviate the more from common ſenſe, and too often loſe ſight of it altogether. Profound ſpeculations, inſtead of making men wiſer or better, often render them abſolute ſceptics, and overwhelm them with doubt and uncertainty. All that is neceſſary for a man to know, in order to be happy, is eaſily obtained; and the reſt, like the forbidden fruit, ſerves only to increaſe his miſery.

Studious perſons, in order to relieve their minds, muſt not only diſcontinue to read and write, but engage in ſome employment or diverſion, that will ſo far occupy the thoughts as to make them forget the buſineſs of the cloſet. A ſolitary ride or walk are ſo far from relaxing the mind, that they rather encourage thought. Nothing can divert the mind, when it goes into a train of ſerious thinking, but attention to ſubjects of a more trivial nature. Theſe prove a kind of play to the mind, and conſequently relieve it.

Learned

Learned men often contract a contempt for what they call trifling company. They are aſhamed to be ſeen with any but philoſophers. This however is no proof of their being philoſophers themſelves. No man deſerves that name who is aſhamed to unbend his mind, by aſſociating with the cheerful and gay. Even the ſociety of children will relieve the mind, and expel the gloom which application to ſtudy is too apt to occaſion.

As ſtudious people are neceſſarily much within doors, they ſhould make choice of a large and well-aired place for ſtudy. This would not only prevent the bad effects which attend confined air, but would cheer the ſpirits, and have a moſt happy influence both on the body and mind. It is ſaid of Euripides the tragedian, that he uſed to retire to a dark cave to compoſe his tragedies, and of Demoſthenes the Grecian orator, that he choſe a place for ſtudy where nothing could be either heard or ſeen. With all deference to ſuch venerable names, we cannot help condemning their taſte. A man may ſurely think to as good purpoſe in an elegant apartment as in a cave; and may have as happy conceptions where the all-cheering rays of the ſun render the air wholeſome, as in places where they never enter.

Thoſe who read or write much ſhould be very attentive to their poſture. They ought to ſit and ſtand by turns, always keeping as nearly in an erect poſture as poſſible. Thoſe who dictate, may do it walking. It has an excellent effect frequently to read or ſpeak aloud. This not only exerciſes the lungs, but almoſt the whole body. Hence ſtudious people are greatly benefited by delivering diſcourſes in public. Public ſpeakers, indeed, ſometimes hurt themſelves by overacting their part; but this is their own fault. The martyr to mere vociferation merits not our ſympathy.

The

The morning has, by all medical writers, been reckoned the beſt time for ſtudy. It is ſo. But it is alſo the moſt proper ſeaſon for exerciſe, while the ſtomach is empty, and the ſpirits refreſhed with ſleep. Studious people ſhould therefore ſometimes ſpend the morning in walking, riding, or ſome manly diverſions without doors. This would make them return to ſtudy with greater alacrity, and would be of more ſervice than twice the time after their ſpirits are worn out with fatigue. It is not ſufficient to take diverſion only when we can think no longer. Every ſtudious perſon ſhould make it a part of his buſineſs, and ſhould let nothing interrupt his hours of recreation more than thoſe of ſtudy.

Muſic has a very happy effect in relieving the mind when fatigued with ſtudy. It would be well if every ſtudious perſon were ſo far acquainted with that ſcience as to amuſe himſelf after ſevere thought, by playing ſuch airs as have a tendency to raiſe the ſpirits, and inſpire cheerfulneſs and good humour.

It is a reproach to Learning, that any of her votaries, to relieve the mind after ſtudy, ſhould betake themſelves to the uſe of ſtrong liquors. This, indeed, is a remedy; but it is a deſperate one, and always proves deſtructive. Would ſuch perſons, when their ſpirits are low, get on horſeback, and ride ten or a dozen miles, they would find it a more effectual remedy than any cordial medicine in the apothecary's ſhop, or all the ſtrong liquors in the world.

The following is my plan, and I cannot recommend a better to others. When my mind is fatigued with ſtudy, or other ſerious buſineſs, I mount my horſe, and ride ten or twelve miles into the country, where I ſpend a day, and ſometimes two, with a cheerful

cheerful friend; after which I never fail to return to town with new vigour, and to purſue my ſtudies or buſineſs with freſh alacrity.

It is much to be regretted, that learned men, while in health, pay ſo little regard to theſe things! There is not any thing more common than to ſee a miſerable object over-run with nervous diſeaſes, bathing, walking, riding, and, in a word, doing every thing for health after it is gone; yet, if any one had recommended theſe things to him by way of prevention, the advice would, in all probability, have been treated with contempt, or, at leaſt, with neglect. Such is the weakneſs and folly of mankind, and ſuch the want of foreſight, even in thoſe who ought to be wiſer than others!

With regard to the diet of the ſtudious, we ſee no reaſon why they ſhould abſtain from any kind of food that is wholeſome, provided they uſe it in moderation. They ought, however, to be ſparing in the uſe of every thing that is windy, rancid, or hard of digeſtion. Their ſuppers ſhould always be light, or taken ſoon in the evening. Their drink may be water, fine malt liquor, not too ſtrong, good cyder, and wine and water.

We ſhall only obſerve, with regard to thoſe kinds of exerciſe which are moſt proper for the ſtudious, that they ſhould not be too violent, nor ever carried to the degree of exceſſive fatigue. They ought likewiſe to be frequently varied ſo as to give action to all the different parts of the body; and ſhould, as often as poſſible, be taken in the open air. In general, riding on horſeback, walking, working in a garden, or playing at ſome active diverſions, are the beſt.

We would likewiſe recommend the uſe of the cold bath to the ſtudious. It will, in ſome meaſure, ſupply

ſupply the place of exerciſe, and ſhould not be neglected by perſons of a relaxed habit, eſpecially in the warm ſeaſon.

No perſon ought either to take violent exerciſe, or to ſtudy immediately after a full meal.

CHAP. III.

Of Aliment.

UNWHOLESOME food, and irregularities in diet, occaſion many diſeaſes. There is no doubt but the whole conſtitution of body may be changed by diet alone. Nor are its effects upon the ſolids leſs conſiderable. They may be braced or relaxed, have their ſenſibility, motions, &c. greatly increaſed or diminiſhed, by different kinds of aliment. A very ſmall attention to theſe things will be ſufficient to ſhow, how much the preſervation of health depends upon a proper regimen of the diet.

Nor is an attention to diet neceſſary for the preſervation of health only: it is likewiſe of importance in the cure of diſeaſes. Every intention in the cure of many diſeaſes, may be anſwered by diet alone. Its effects, indeed, are not always ſo quick as thoſe of medicine, but they are generally more laſting: beſides, it is neither ſo diſagreeable to the patient, nor ſo dangerous as medicine, and is always more eaſily obtained.

Our intention here is not to enquire minutely into the nature and properties of the various kinds of aliment in uſe among mankind; nor to ſhew their effects

effects upon the different conſtitutions of the human body; but to mark ſome of the moſt pernicious errors which people are apt to fall into, with reſpect both to the quantity and qualities of their food, and to point out their influence upon health.

It is not indeed an eaſy matter to aſcertain the exact quantity of food proper for every age, ſex, and conſtitution: but a ſcrupulous nicety here is by no means neceſſary. The beſt rule is to avoid all extremes. Mankind were never intended to weigh and meaſure their food. Nature teaches every creature when it has enough; and the calls of thirſt and hunger are ſufficient to inform them when more is neceſſary.

Though *moderation* is the chief rule with regard to the quantity, yet the quality of food merits a farther conſideration. There are many ways by which proviſions may be rendered unwholeſome. Bad ſeaſons may either prevent the ripening of grain, or damage it afterwards. Theſe, indeed, are acts of Providence, and we muſt ſubmit to them; but ſurely no puniſhment can be too ſevere for thoſe who ſuffer proviſions to ſpoil by hoarding them, on purpoſe to raiſe the price, or who promote their own ſuppoſed intereſt by adulterating the neceſſaries of life. *

Animal, as well as vegetable food, may be rendered unwholeſome, by being kept too long. All animal ſubſtances have a conſtant tendency to putrefaction; and, when that has proceeded too far, they

* The poor, indeed, are generally the firſt who ſuffer by unſound proviſions; but the lives of the labouring poor are of great importance to the ſtate: beſides, diſeaſes occaſioned by unwholeſome food often prove infectious, by which means they reach people in every ſtation. It is therefore the intereſt of all to take care that no ſpoilt proviſions of any kind be expoſed to ſale.

not only become offenſive to the ſenſes, but hurtful to health. Diſeaſed animals, and ſuch as die of themſelves, ought never to be eaten. It is a common practice, however, in ſome grazing countries, for ſervants and poor people to eat ſuch animals as die of any diſeaſe, or are killed by accident. Poverty, indeed, may oblige people to do this; but they had better eat a ſmaller quantity of what is found and wholeſome: it would both afford a better nouriſhment, and be attended with leſs danger.

The injunctions given to the Jews, not to eat any creature which died of itſelf, ſeemed to have a ſtrict regard to health; and ought to be obſerved by Chriſtians as well as Jews. Even thoſe which die by accident muſt be hurtful, as their blood is mixed with the fleſh, and ſoon turns putrid.

Animals which feed groſsly, as tame ducks, hogs, &c. are neither ſo eaſily digeſted, nor afford ſuch wholeſome nouriſhment as others. No animal can be wholeſome which does not take ſufficient exerciſe. Moſt of our ſtalled cattle are crammed wi h groſs food, but not allowed exerciſe nor free air; by which means they indeed grow fat, but their juices not being properly prepared or aſſimilated, remain crude and occaſion indigeſtions, groſs humours, and oppreſſion of the ſpirits, in thoſe who feed upon them.

Animals are often rendered unwholeſome by being over-heated. Exceſſive heat cauſes a fever, exalts the animal ſalts, and mixes the blood ſo intimately with the fleſh that it cannot be ſeparated. For this reaſon, butchers ſhould be ſeverely puniſhed who over-drive their cattle. No perſon would chuſe to eat the fleſh of an animal which had died in a high fever; yet that is the caſe with all over-drove cattle; and the fever is often raiſed to the degree of madneſs.

But this is not the only way by which butchers render meat unwholeſome. The abominable cuſtom of filling the cellular membrane of animals with air, in order to make them appear fat, is every day practiſed. This not only ſpoils the meat and renders it unfit for keeping, but is ſuch a dirty trick, that the very idea of it is ſufficient to diſguſt a perſon of any delicacy, at every thing which comes from the ſhambles. Who can bear the thought of eating meat which has been blown up with air from the lungs of a dirty fellow, perhaps labouring under the very worſt of diſeaſes?

Butchers have likewiſe a method of filling the cellular membranes of animals with blood. This makes the meat ſeem fatter, and likewiſe weigh more, but is notwithſtanding a very pernicious cuſtom, as it both renders the meat unwholeſome and unfit for keeping. I ſeldom ſee a piece of meat from the ſhambles, where the blood is not diffuſed through the cellular texture. I ſhall not ſay that this is always the effect of deſign; but I am certain it is not the caſe with animals that are killed for domeſtic uſe, and properly blooded. Veal ſeems to be moſt frequently ſpoilt in this way. Perhaps that may in ſome meaſure be owing to the practice of carrying calves from a great diſtance to market, by which means their tender fleſh is bruiſed, and many of their veſſels burſt.

No people in the world eat ſuch quantities of animal food as the Engliſh, which is one reaſon why they are ſo generally tainted with the ſcurvy and its numerous train of conſequences, indigeſtion, low ſpirits, hypochondriaciſm, &c. Animal food was ſurely deſigned for man, and, with a proper mixture of vegetables, it will be found the moſt wholeſome; but to gorge beef, mutton, pork, fiſh, and fowl, twice or thrice a day, is certainly too much. All

who

who value health ought to be contented with making one meal of flesh in the twenty-four hours, and this ought to consist of one kind only.

The most obstinate scurvy has often been cured by a vegetable diet; nay, milk alone will frequently do more in that disease than any medicine. Hence it is evident, that if vegetables and milk were more used in diet, we should have less scurvy, and likewise fewer putrid and inflammatory fevers. Fresh vegetables, indeed, come to be daily more used in diet; this laudable practice we hope will continue to gain ground.

Our aliment ought neither to be too moist nor too dry. Moist aliment relaxes the solids, and renders the body feeble. Thus we see females, who live much on tea and other watery diet, generally become weak, and unable to digest solid food: hence proceed hysterics, and all other dreadful consequences. On the other hand, food that is too dry, renders the solids in a manner rigid, and the humors viscid, which dispose the body to inflammatory fevers, scurvies, and the like.

Much has been said on the ill effects of tea in diet. They are, no doubt, numerous; but they proceed rather from the imprudent use of it, than from any bad qualities in the tea itself. Tea is now the universal breakfast in Great Britain; but the morning is surely the most improper time of the day for drinking it. Most delicate persons, who, by the bye, are the greatest tea-drinkers, cannot eat any thing in the morning. If such persons, after fasting ten or twelve hours, drink four or five cups of tea without eating almost any bread, it must hurt them. Good tea, taken in moderate quantity, not too strong nor too hot, nor drank upon an empty stomach, will seldom do harm; but if it be bad, which

is often the caſe, or ſubſtituted in the room of ſolid food, it muſt have many ill effects.

The arts of cookery render many things unwholeſome, which are not ſo in their own nature. By jumbling together a number of different ingredients, in order to make a poignant ſauce, or rich ſoup, the compoſition proves almoſt a poiſon. All high ſeaſoning, pickles, &c. are only incentives to luxury, and never fail to hurt the ſtomach. It were well for mankind, if cookery, as an art, were entirely prohibited. Plain roaſting or boiling is all that the ſtomach requires. Theſe alone are ſufficient for people in health, and the ſick have ſtill leſs need of a cook.

The liquid part of our aliment likewiſe claims our attention. Water is not only the baſis of moſt liquors, but alſo compoſes a great part of our ſolid food. Good water muſt therefore be of the greateſt importance in diet. The beſt water is that which is moſt pure, and free from any mixture of foreign bodies. Water takes up parts of moſt bodies with which it comes into contact; by this means it is often impregnated with metals or minerals of a hurtful or poiſonous nature. Hence the inhabitants of ſome hilly countries have peculiar diſeaſes, which, in all probability, proceed from the water. Thus the people who live near the Alps in Switzerland, and the inhabitants of the Peak of Derby in England, have large tumors or wens on their necks. This diſeaſe is generally imputed to the ſnow-water; but there is more reaſon to believe it is owing to the minerals in the mountains through which the waters paſs.

When water is impregnated with foreign bodies, it generally appears by its weight, colour, taſte, ſmell, heat, or ſome other ſenſible quality. Our

buſineſs

buſineſs therefore is to chuſe ſuch water, for common uſe, as is lighteſt, and without any particular colour, taſte, or ſmell. In moſt places of Britain the inhabitants have it in their power to make choice of their water; and few things would contribute more to health than a due attention to this article. But mere indolence often induces people to make uſe of the water that is neareſt to them, without conſidering its qualities.

Before water is brought into great towns, the ſtricteſt attention ought to be paid to its qualities, as many diſeaſes may be occaſioned or aggravated by bad water; and when once it has been procured at a great expence, people are unwilling to give it up.

The common method of rendering water clear by filtration, or ſoft, by expoſing it to the ſun and air, &c. are ſo generally known, that it is unneceſſary to ſpend time in explaining them. We ſhall only, in general, adviſe all to avoid waters which ſtagnate long in ſmall lakes, ponds, or the like, as ſuch waters often become putrid, by the corruption of animal and vegetable bodies with which they abound. Even cattle frequently ſuffer by drinking, in dry ſeaſons, water which has ſtood long in ſmall reſervoirs, without being ſupplied by ſprings, or freſhened with ſhowers. All wells ought to be kept clean, and to have a free communication with the air.

As fermented liquors, notwithſtanding they have been exclaimed againſt by many writers, ſtill unhappily continue to be the common drink of almoſt every perſon who can afford them; we ſhall rather endeavour to aſſiſt people in the choice of theſe liquors, than to pretend to condemn what cuſtom has ſo firmly eſtabliſhed. It is not the moderate uſe of ſound fermented liquors which hurts mankind: it is exceſs, and uſing ſuch as are ill prepared or vitiated.

Fermented liquors, which are too ſtrong, hurt digeſtion; and the body is ſo far from being ſtrengthened by them, that it is weakened and relaxed. Many imagine that hard labour could not be ſupported without drinking ſtrong liquors; this is a very erroneous notion. Men who never taſte ſtrong liquors are not only able to endure more fatigue, but alſo live much longer, than thoſe who uſe them daily. But, ſuppoſe ſtrong liquors did enable a man to do more work, they muſt nevertheleſs waſte the powers of life, and occaſion premature old age. They keep up a conſtant fever, which exhauſts the ſpirits, inflames the blood, and diſpoſes the body to numberleſs diſeaſes.

But fermented liquors may be too weak as well as too ſtrong: when that is the caſe, they muſt either be drank new, or they become ſour and dead: when ſuch liquors are drank new, the fermentation not being over, they generate air in the bowels, and occaſion flatulencies; and, when kept till ſtale, they turn ſour on the ſtomach, and hurt digeſtion. For this reaſon, all malt liquors, cider, &c. ought to be of ſuch ſtrength as to keep till they be ripe, and then they ſhould be uſed. When ſuch liquors are kept too long, though they ſhould not become ſour, yet they generally contract a hardneſs, which renders them unwholeſome.

All families, who can, ought to prepare their own liquors. Since preparing and vending of liquors become one of the moſt general branches of buſineſs, every method has been tried to adulterate them. The great object both to the makers and venders of liquor is, to render it intoxicating, and give it the appearance of age. But it is well known that it may be done by other ingredients than thoſe which ought to be uſed for making it ſtrong. It would be imprudent even to name thoſe things which

are daily made uſe of to render liquors heady. Suffice it to ſay, that the practice is very common, and that all the ingredients uſed for this purpoſe are of a narcotic or ſtupefactive quality. But as all theſe drugs are poiſonous, it is eaſy to ſee what muſt be the conſequence of their general uſe. Though they do not kill ſuddenly, yet they hurt the nerves, relax and weaken the ſtomach, and ſpoil the digeſtion.

Were fermented liquors faithfully prepared, kept to a proper age, and uſed in moderation, they would prove real bleſſings to mankind. But, while they are ill prepared, various ways adulterated, and taken to exceſs, they muſt have many pernicious effects.

We would recommend it to families, not only to prepare their own liquors, but likewiſe their bread. Bread is ſo neceſſary a part of diet, that too much care cannot be beſtowed in order to have it ſound and wholeſome. For this purpoſe, it is not only neceſſary that it be made of good grain, but likewiſe properly prepared, and kept free from all unwholeſome ingredients. This, however, we have reaſon to believe is not always the caſe with bread prepared by thoſe who make a trade of vending it. Their object is rather to pleaſe the eye, than to conſult the health. The beſt bread is that which is neither too coarſe nor too fine; well fermented, and made of wheat flour, or rather of wheat and rye mixed together. Notwithſtanding the general idea of the ſuperiority of fermented bread, it is certain that unfermented bread is more wholeſome; witneſs, the oat-cakes of the Scotch, the rice of the Eaſt-Indians, the indian meal of the Indians of America, the hard biſcuit of wheaten flour.

To ſpecify the different kinds of aliment, to explain their nature and properties, and to point out their effects in different conſtitutions, would far ex-

ceed the limits of our deſign. Inſtead of a detail of this kind, which would not be generally underſtood, and of courſe little attended to, we ſhall only mention the following eaſy rules with reſpect to the choice of aliment.

Perſons, whoſe ſolids are weak and relaxed, ought to avoid all viſcid food, or ſuch things as are hard of digeſtion. Their diet, however, ought to be nouriſhing; and they ſhould take ſufficient exerciſe in the open air.

Such as abound with blood ſhould be ſparing in the uſe of every thing that is highly nouriſhing, as fat meat, rich wines, ſtrong ale, and ſuch like. Their food ſhould conſiſt chiefly of bread and other vegetable ſubſtances; and their drink ought to be water, whey, or ſmall beer.

Fat people ſhould not eat freely of oily nouriſhing diet. They ought frequently to uſe horſe-radiſh, garlic, and ſuch things as promote perſpiration and urine. Their drink ſhould be water, coffee, tea, or the like; and they ought to take much exerciſe and little ſleep.

Thoſe who are too lean muſt follow an oppoſite courſe.

Such as are troubled with acidities, or whoſe food is apt to ſour on the ſtomach, ſhould live much on animal food; and thoſe who are afflicted with hot bilious eructations, ought to uſe a diet conſiſting chiefly of acid vegetables.

People who are affected with the gout, low ſpirits, hypochondriac or hyſteric diſorders, ought to avoid all flatulent food, every thing that is viſcid, or hard of digeſtion, all ſalted or ſmoke-dried proviſions, and whatever is auſtere, acid, or apt to turn ſour on the ſtomach. Their food ſhould be light, ſpare, cool, and of an opening nature.

The

The diet ought not only to be ſuited to the age and conſtitution, but alſo to the manner of life: a ſedentary or ſtudious perſon ſhould live more ſparingly than one who labours hard without doors. Many kinds of food will nouriſh a peaſant very well which would be almoſt indigeſtible to a citizen; and the latter would live upon a diet on which the former would ſtarve.

Diet ought not to be too uniform. The conſtant uſe of one kind of food might have ſome bad effects. Nature teaches us this by the great variety of aliment which ſhe has provided for man, and likewiſe by giving him an appetite for different kinds of food.

Thoſe who labour under any particular diſeaſe, ought to avoid ſuch aliments as have a tendency to increaſe it: for example, a gouty perſon ſhould not indulge in rich wines, ſtrong ſoups, or gravies, and ſhould avoid all acids. And thoſe who are ſcorbutic, ſhould be ſparing in the uſe of ſalted proviſions, &c.

In the firſt period of life, our food ought to be light, but nouriſhing, and frequently taken. Food that is ſolid, with a ſufficient degree of tenacity, is moſt proper for the ſtate of manhood. The diet ſuited to the laſt period of life, when nature is upon the decline, approaches nearly to that of the firſt. It ſhould be lighter and more ſucculent than that of vigorous age, and likewiſe more frequently taken. The beſt *general* rule in the choice of diet is to eat ſuch food as is agreeable to the taſte, and is found by experience to be eaſy to the ſtomach. No one who is honeſt to himſelf need ever be deceived in this particular.

It is not only neceſſary for health that our diet be wholeſome, but alſo that it be taken at regular periods. Some imagine long faſting will atone for exceſs;

ceſs; but this, inſtead of mending the matter, generally makes it worſe. When the ſtomach and inteſtines are over-diſtended with food, they loſe their proper tone; and, by long faſting, they become weak, and inflated with wind. Thus, either gluttony or faſting deſtroys the powers of digeſtion.

The frequent repetition of aliment is not only neceſſary for repairing the continual waſte of our bodies, but likewiſe to keep the fluids ſound and ſweet. Our humors, even in the moſt healthy ſtate, have a conſtant tendency to putrefaction, which can only be prevented by frequent ſupplies of freſh nouriſhment: when that is wanting too long the putrefaction often proceeds ſo far as to occaſion very dangerous fevers. From hence we may learn the neceſſity of regular meals. No perſon can enjoy a good ſtate of health, whoſe veſſels are either frequently overcharged, or the humors long deprived of freſh ſupplies of chyle.

Long faſting is extremely hurtful to young people; it not only vitiates their humors, but prevents their growth. Nor is it leſs injurious to the aged. Many perſons, in the decline of life, are afflicted with wind: this complaint is not only increaſed, but even rendered dangerous, and often fatal, by long faſting. Old people, when their ſtomachs are empty, are frequently ſeized with giddineſs, head-achs, and faintineſs. Theſe complaints may generally be removed by a piece of bread and a glaſs of wine, or by taking any other ſolid food; which plainly points out the method of preventing them.

It is more than probable that many of the ſudden deaths, which happen in the advanced periods of life, are occaſioned by faſting too long, as it exhauſts the ſpirits, and fills the bowels with wind; we would therefore adviſe perſons, in the decline of life, never to allow their ſtomachs to be too long empty.

Many

Many people take nothing but a few cups of tea and a little bread, from nine o'clock at night till two or three next afternoon. Such may be ſaid to faſt almoſt three fourths of their time. This can hardly fail to ruin the appetite, vitiate the humors, and fill the bowels with wind; all which might be prevented by a ſolid breakfaſt.

It is a very common practice to eat a light breakfaſt and a heavy ſupper. This cuſtom ought to be reverſed. When people ſup late, their ſupper ſhould be very light; but the breakfaſt ought always to be ſolid. If any one eats a light ſupper, goes ſoon to bed, and riſes betimes in the morning, he will be ſure to find an appetite for his breakfaſt, and he may freely indulge it.

The ſtrong and healthy do not indeed ſuffer ſo much from faſting as the weak and delicate; but they run great hazard from its oppoſite, *viz.* repletion. Many diſeaſes, eſpecially fevers, are the effect of a plethora, or too great a fulneſs of the veſſels. Strong people, in high health, have generally a great quantity of blood and other humors. When theſe are ſuddenly increaſed, by an over-charge of rich and nouriſhing diet, the veſſels become too much diſtended, and obſtructions and inflammations enſue. Hence ſo many people are ſeized with inflammatory and eruptive fevers after a feaſt or a debauch.

All great and ſudden changes in diet are dangerous. What the ſtomach has been long accuſtomed to digeſt, though leſs wholeſome, will agree better with it than food of a more ſalutary nature which it has not been uſed to. When therefore a change becomes neceſſary, it ought always to be made gradually; a ſudden tranſition from a poor and low, to a rich and luxurious diet, or the contrary, might ſo diſturb the functions of the body, as to endanger health, or even to occaſion death itſelf.

When

When we recommend regularity in diet, we would not be underſtood as condemning every ſmall deviation from it. It is next to impoſſible for people at all times to avoid ſome degree of exceſs, and living too much by rule might make even the ſmalleſt deviation dangerous. It may therefore be prudent to vary a little, ſometimes taking more, ſometimes leſs, than the uſual quantity of meat and drink, provided always that a due regard be had to moderation.

CHAP. IV.

Of Air.

UNWHOLESOME air is a very common cauſe of diſeaſes. Few perſons are aware of the danger ariſing from it. People generally pay ſome attention to what they eat and drink, but ſeldom regard what goes into the lungs, though the latter proves often more ſuddenly fatal than the former.

Air, as well as water, takes up parts of moſt bodies with which it comes in contact, and is often ſo repleniſhed with thoſe of a noxious quality, as to occaſion immediate death. But ſuch violent effects ſeldom happen, as people are generally on their guard againſt them. The leſs perceptible influences of bad air prove more generally hurtful to mankind; we ſhall therefore endeavour to point out ſome of theſe, and to ſhew from whence the danger chiefly ariſes.

Wherever

Wherever great numbers of people are crowded into one place, if the air has not a free circulation, it ſoon becomes unwholeſome. Hence it is that delicate perſons are ſo apt to turn ſick or faint in crowded churches, aſſemblies, or any place where the air is injured by breathing, fires, candles, or the like.

In great cities ſo many things tend to contaminate the air, that it is no wonder it proves ſo fatal to the inhabitants. The air in cities is not only breathed repeatedly over, but is likewiſe loaded with ſulphur, ſmoke, and other exhalations, beſides the vapours continually ariſing from innumerable putrid ſubſtances, as dunghills, ſlaughter-houſes, &c. All poſſible care ſhould be taken to keep the ſtreets of large towns open and wide, that the air may have a free current through them. They likewiſe ought to be kept very clean. Nothing tends more to pollute and contaminate the air of a city than dirty ſtreets.

It is very common, in this country to have churchyards in the middle of populous cities. Whether this be the effect of ancient ſuperſtition, or owing to the increaſe of ſuch towns, is a matter of no conſequence. Whatever gave riſe to the cuſtom, it is a bad one. It is habit alone, which reconciles us to theſe things; by means of which the moſt ridiculous, nay, pernicious cuſtoms, often become ſacred*.

Burying within churches is a practice ſtill more deteſtable. The air in churches is ſeldom good, and the effluvia from putrid carcaſes muſt render it ſtill worſe. Churches are commonly old buildings

* In moſt eaſtern countries, it was cuſtomary to bury the dead at ſome diſtance from any town. As this practice obtained among the Jews, the Greeks, and alſo the Romans, it is ſtrange that the weſtern parts of Europe, ſhould not have followed their example in a cuſtom ſo truly laudable.

with

with arched roofs. They are ſeldom open above once a week, are never ventilated by fires nor open windows, and rarely kept clean. This occaſions that damp, muſty, unwholeſome ſmell which one feels upon entering a church, and renders it a very unſafe place for the weak and valetudinary. Theſe inconveniences might, in a great meaſure, be obviated, by prohibiting all perſons from burying within churches, by keeping them clean, and permitting a ſtream of freſh air to paſs frequently through them, by opening oppoſite doors and windows*.

Wherever air ſtagnates long, it becomes unwholeſome. Hence the unhappy perſons confined in jails, not only contract malignant fevers themſelves, but often communicate them to others. Nor are many of the holes, for we cannot call them houſes, poſſeſſed by the poor in great towns, much better than jails. Theſe low, dirty habitations, are the very lurking-places of bad air and contagious diſeaſes. Such as live in them ſeldom enjoy good health; and their children commonly die young. In the choice of a houſe, thoſe who have it in their power ought always to pay the greateſt attention to open free air.

The various methods which luxury has invented to make houſes cloſe and warm, contribute not a little to render them unwholeſome. No houſe can be wholeſome, unleſs the air has a free paſſage through it. For which reaſon, houſes ought daily to be ventilated, by opening oppoſite windows and admitting a current of freſh air into every room. Beds, inſtead of being made up as ſoon as people riſe out of them, ought to be turned down, and expoſed to the freſh air, from the open windows, through the day. This would expel any noxious

* One cannot paſs through a large church or cathedral, even in ſummer, without feeling quite chilly.

vapour

vapour, and could not fail to promote the health of the inhabitants.

In hoſpitals, jails, ſhips, &c. where that cannot be conveniently done, ventilators ſhould be uſed. The method of expelling foul, and introducing freſh air, by means of ventilators, is a moſt ſalutary invention, and is indeed the moſt uſeful of all our modern medical improvements. It is capable of univerſal application, and is fraught with numerous advantages, both to thoſe in health and ſickneſs. In all places, where numbers of people are crowded together, ventilation becomes abſolutely neceſſary.

Air which ſtagnates in mines, wells, cellars, &c. is extremely noxious. That kind of air is to be avoided, as the moſt deadly poiſon. It often kills, almoſt as quickly as lightning. For this reaſon, people ſhould be very cautious in opening cellars that have been long ſhut, or going down into deep wells or pits, eſpecially if they have been kept cloſe covered*.

Many people, who have ſplendid houſes, chooſe to ſleep in ſmall apartments. This conduct is very imprudent. A bed-chamber ought always to be well aired; as it is generally occupied in the night only, when all doors and windows are ſhut. If a fire be kept in it, the danger from a ſmall room becomes ſtill greater. Numbers have been ſtifled when aſleep by a fire in a ſmall apartment, which is always hurtful.

Thoſe who are obliged, on account of buſineſs, to ſpend the day in cloſe towns, ought, if poſſible, to

* We have daily accounts of perſons who loſe their lives, by going down into deep wells, and other places where the air ſtagnates; all theſe accidents might be prevented, by only letting down a lighted candle before them, and ſtopping when they perceive it go out; yet this precaution, ſimple as it is, is too ſeldom uſed.

ſleep

ſleep in the country. Breathing free air in the night, will, in ſome meaſure make up for the want of it through the day. This practice would have a greater effect in preſerving the health of citizens than is commonly imagined.

Delicate perſons ought, as much as poſſible, to avoid the air of great towns. It is peculiarly hurtful to the aſthmatic and conſumptive. Such perſons ſhould avoid cities as they would the plague. The hypochondriac are likewiſe much hurt by it. I have often ſeen perſons ſo much afflicted with this malady, while in town, that it ſeemed impoſſible for them to live, who, upon being removed to the country, were immediately relieved. The ſame obſervation holds with regard to nervous and hyſteric women*. Many people, indeed, have it not in their power to change their ſituation in queſt of better air. All we can ſay to ſuch perſons is, that they ſhould go as often abroad into the open air as they can, that they ſhould admit freſh air frequently into their houſes, and take care to keep them very clean.

It was neceſſary in former times, for ſafety, to ſurround cities, colleges, and even ſingle houſes, with high walls. Theſe, by obſtructing the free current of air, never fail to render ſuch places damp and unwholeſome. As ſuch walls are now become uſeleſs, they ought to be pulled down, and every method taken to admit a free free paſſage to the air. Proper attention to AIR and CLEANLINESS, would tend more to preſerve the health of mankind, than all the endeavours of the faculty.

* And yet we often find theſe diſeaſes to prevail in the country, where a retired life gives riſe to them. The beſt rule in theſe caſes is, to uſe exerciſe, whether in town or country; and to exchange the one for the other, according to circumſtances.

Surrounding houſes too cloſely with planting, or thick woods, likewiſe tends to render the air unwholeſome. Wood not only obſtructs the free current of the air, but ſends forth great quantities of moiſt exhalations, which render it conſtantly damp. Wood is very agreeable at a proper diſtance from a houſe, but ſhould never be planted too near it, eſpecially in a flat country. Many of the gentlemen's ſeats in England are rendered very unwholeſome, from the great quantity of wood which ſurrounds them.

Houſes ſituated in low marſhy countries, or near large lakes of ſtagnating water, are likewiſe unwholeſome. Waters which ſtagnate, not only render the air damp, but load it with putrid exhalations, which produce the moſt dangerous and fatal diſeaſes. Thoſe who are obliged to inhabit marſhy countries, ought to make choice of the drieſt ſituations they can find, and to the windward, as the ſailors ſay, of any pond or marſh, to live generouſly, and to pay the ſtricteſt regard to cleanlineſs.

If freſh air be neceſſary for thoſe in health, it is ſtill more ſo for the ſick, who often loſe their lives for want of it. The notion that ſick people muſt be kept very hot, is ſo common, that one can hardly enter the chamber where a patient lies without being ready to faint, by reaſon of the hot ſuffocating ſmell. How this may affect the ſick any one may judge. No medicine is ſo beneficial to them as freſh air. It is the moſt reviving of all cordials, if it be adminiſtered with prudence. We are not, however, to throw open doors and windows at random upon the ſick. Freſh air is to be let into the chamber gradually, and, if poſſible, by opening the windows of ſome other apartment.

The air of a ſick perſon's chamber may be greatly freſhened, and the patient much revived by ſprink-

ling the floor, bed, &c. frequently with vinegar, juice of lemon, or any other ſtrong vegetable acid.

In places where numbers of ſick are crowded into the ſame houſe, or, which is often the caſe, into the ſame apartment, the frequent admiſſion of freſh air becomes abſolutely neceſſary. Infirmaries, hoſpitals, &c. are often rendered ſo noxious, for want of proper ventilation, that the ſick run more hazard from them than from the diſeaſe. This is particularly the caſe when fevers, dyſenteries, and other infectious diſeaſes prevail.

Phyſicians, ſurgeons, and others who attend hoſpitals, ought, for their own ſafety, to take care that they be properly ventilated. Such perſons as are obliged to ſpend moſt of their time amongſt the ſick, run a hazard of being themſelves infected when the air is bad. All hoſpitals, and places of reception for the ſick, ought to have an open ſituation, at ſome diſtance from any great town, and ſuch patients as labour under any infectious diſeaſe ought never to be ſuffered to come near the reſt.

CHAP. V.

Of Exerciſe.

MANY people look upon the neceſſity man is under of earning his bread by labour, as a curſe. Be this as it may, it is evident from the ſtructure of the body, that exerciſe is not leſs neceſſary than food for the preſervation of health: thoſe whom poverty obliges to labour for daily bread, are not only the moſt healthy, but generally the moſt happy

happy part of mankind. Induſtry ſeldom fails to place them above want, and activity ſerves them inſtead of phyſic. This is peculiarly the caſe with thoſe who live by the culture of the ground. The great increaſe of inhabitants in infant colonies, and the longevity of ſuch as follow agriculture every where, evidently prove it to be the moſt healthful as well as the moſt uſeful employment.

The love of activity ſhows itſelf very early in man. So ſtrong is this principle, that an healthy youth cannot be reſtrained from exerciſe, even by the fear of puniſhment. Our love of motion is ſurely a ſtrong proof of its utility. Nature implants no diſpoſition in vain. It ſeems to be a general law throughout the whole animal creation, that no creature, without exerciſe, ſhould enjoy health, or be able to find ſubſiſtence. Every creature, except man, takes as much of it as is neceſſary. He alone, and ſuch animals as are under his direction, deviate from this original law, and they ſuffer accordingly.

Inactivity ſeldom fails to induce an univerſal relaxation of the ſolids, which diſpoſes the body to innumerable diſeaſes. When the ſolids are relaxed, neither the digeſtion, nor any of the ſecretions, can be duly performed. In this caſe the worſt conſequences muſt enſue. How can perſons, who loll all day in eaſy chairs, and ſleep all night on beds of down, fail to be relaxed? Nor do ſuch greatly mend the matter, who never ſtir abroad but in a coach, ſedan, or ſuch like. Theſe elegant pieces of luxury are become ſo common, that the inhabitants of great towns ſeem to be in ſome danger of loſing the uſe of their limbs altogether. It is now below any one to walk, who can afford to be carried. How ridiculous would it ſeem, to a perſon unacquainted with modern luxury, to behold the young and healthy ſwinging along on the ſhoulders of their fellow-creatures! or to ſee a fat car-

caſe, over-run with diſeaſes occaſioned by inactivity, dragged through the ſtreets by half a dozen horſes*!

Glandular obſtructions, now ſo common, generally proceed from inactivity. Theſe are the moſt obſtinate of maladies. So long as the liver, kidneys, and other glands, duly perform their functions, health is ſeldom impaired; but, when they fail, nothing can reſtore it. Exerciſe is almoſt the only cure we know for glandular obſtructions; indeed, it does not always ſucceed as a remedy; but there is reaſon to believe that it would ſeldom fail to prevent theſe complaints, were it uſed in due time. One thing is certain, that, amongſt thoſe who take ſufficient exerciſe, glandular diſeaſes are very little known; whereas the indolent and inactive are ſeldom free from them.

Weak nerves are the conſtant companions of inactivity. Nothing but exerciſe and open air can brace and ſtrengthen the nerves, or prevent the endleſs train of diſeaſes which proceed from a relaxed ſtate of theſe organs. We ſeldom hear the active or laborious complain of nervous diſeaſes! theſe are reſerved for the ſons of eaſe and affluence. Many have been completely cured of theſe diſorders by being reduced, from a ſtate of opulence, to labour for their daily bread. This plainly points out the ſources from whence nervous diſeaſes flow, and the means by which they may be prevented.

* It is not neceſſity, but faſhion, which makes the uſe of carriages ſo common. There are many people who have not exerciſe enough to keep their humors wholeſome, who yet dare not venture to make a viſit to their next neighbours, but in a coach or ſedan, leſt they ſhould be looked down upon. Strange that men ſhould be ſuch fools as to be laughed out of the uſe of their limbs, or to throw away their health, in order to gratify a piece of vanity, or to comply with a ridiculous faſhion!

It

It is abſolutely impoſſible to enjoy health, where the perſpiration is not duly carried on; but that can never be the caſe where exerciſe is neglected. When the matter which ought to be thrown off by perſpiration is retained in the body, it vitiates the humors, and occaſions the gout, fevers, rheumatiſm, &c. Exerciſe alone would prevent many of thoſe diſeaſes which cannot be cured, and would remove others where medicine proves ineffectual.

A late author*, in his excellent treatiſe on health, ſays, that the weak and valetudinary ought to make exerciſe a part of their religion. We would recommend this, not only to the weak and valetudinary, but to all whoſe buſineſs does not oblige them to take ſufficient exerciſe, as ſedentary artificers †, ſhopkeepers, ſtudious perſons, &c. Such ought to uſe exerciſe as regularly as they take food. This might generally be done without any interruption to buſineſs or real loſs of time.

No piece of indolence hurts the health more than the modern cuſtom of lying a-bed too long in a morning. This is the general practice in great

* Cheyne.

† Sedentary occupations ought chiefly to be followed by women. They bear confinement better than men, and are fitter for every kind of buſineſs which does not require much ſtrength. It is ridiculous enough to ſee a luſty fellow making pins, needles, or watch wheels, while many of the laborious parts of huſbandry are carried on by the other ſex. The fact is, we want men for laborious employments, while one half of the ſother ſex are rendered uſeleſs for want of occupations ſuited to their ſtrength, &c. Were girls bred to mechanical employments, we ſhould not ſee ſuch numbers of them proſtitute themſelves for bread, nor find ſuch a want of men for the important purpoſes of navigation, agriculture, &c. An eminent ſilk manufacturer told me, that he found women anſwer better for that buſineſs, than men; and that he had lately taken a great many girls apprentices as ſilk-weavers. I hope his example will be followed by many others.

towns. The inhabitants of cities ſeldom riſe before eight or nine o'clock; but the morning is undoubtedly the beſt time for exerciſe, while the ſtomach is empty, and the body refreſhed with ſleep. Beſides, the morning air braces and ſtrengthens the nerves, and, in ſome meaſure, anſwers the purpoſe of a cold bath. Let any one who has been accuſtomed to lie a-bed till eight or nine o'clock, riſe by ſix or ſeven, ſpend a couple of hours in walking, riding, or any active diverſion without doors, and he will find his ſpirits cheerful and ſerene through the day, his appetite keen, and his body braced and ſtrengthened. Cuſtom ſoon renders early riſing agreeable, and nothing contributes more to the preſervation of health*.

The inactive are continually complaining of pains of the ſtomach, flatulencies, indigeſtions, &c. Theſe complaints, which pave the way to many others, are not to be removed by medicines. They can only be cured by a vigorous courſe of exerciſe, to which indeed they ſeldom fail to yield.

Exerciſe, if poſſible, ought always to be taken in the open air. When that cannot be done, various methods may be contrived for exerciſing the body within doors, as the dumb bell, dancing, fencing, &c. It is not neceſſary to adhere ſtrictly to any particular kind of exerciſe. The beſt way is to take them by turns, and to uſe that longeſt which is moſt ſuitable to the ſtrength and conſtitution. Thoſe kinds of exerciſe which give action to moſt of the bodily organs, are always to be preferred, as walking, running, riding, digging, ſwimming, and ſuch like.

* Thoſe who live in the country, however, in the neighbourhood of marſhy places, eſpecially, ought never to be out of doors, before ſun-riſe nor after ſun-ſet.

It is much to be regretted, that active and manly diverſions are now ſo little practiſed. Diverſions make people take more exerciſe than they otherwiſe would do, and are of the greateſt ſervice to ſuch as are not under the neceſſity of labouring for their bread. As active diverſions loſe ground, thoſe of a ſedentary kind ſeem to prevail. Sedentary diverſions are of no other uſe but to conſume time. Inſtead of relieving the mind, they often require more thought than either ſtudy or buſineſs. Every thing that induces people to ſit ſtill, unleſs it be ſome neceſſary employment, ought to be avoided.

The diverſions which afford the beſt exerciſe are, hunting, ſhooting, playing at cricket, hand-ball, golff*, &c. Theſe exerciſe the limbs, promote perſpiration, and the other ſecretions. They likewiſe ſtrengthen the lungs, and give firmneſs and agility to the whole body.

Such as can, ought to ſpend two or three hours a-day on horſeback; thoſe who cannot ride, ſhould employ the ſame time in walking. Exerciſe ſhould never be continued too long. Over-fatigue prevents the benefit of exerciſe, and, inſtead of ſtrengthening the body, tends to weaken it.

Every man ſhould lay himſelf under ſome ſort of neceſſity to take exerciſe. Indolence, like other vices when indulged, gains ground, and at length becomes agreeable. Hence many who were fond of exerciſe in the early part of life, become quite averſe to it afterwards. This is the caſe of moſt hypochondriac and gouty people, which renders their diſeaſes, in a great meaſure, incurable.

* Golff is a diverſion very common in North-Britain. It is well calculated for exerciſing the body, and may always be taken in ſuch moderation, as neither to over-heat nor fatigue. It has greatly the preference over cricket, tennis, or any of thoſe games which cannot be played without violence.

In ſome countries, laws have been made, obliging every man, of whatever rank, to learn ſome mechanical employment. Whether ſuch laws were deſigned for the preſervation of health, or the encouragement of manufacture, is a queſtion of no importance. Certain it is, that if gentlemen were frequently to amuſe and exerciſe themſelves in this way, it might have many good effects. They would at leaſt derive as much honour from a few maſterly ſpecimens of their own workmanſhip, as from the character of having ruined moſt of their companions by gaming or drinking. Beſides, men of leiſure, by applying themſelves to the mechanical arts, might improve them to the great benefit of ſociety.

Indolence not only occaſions diſeaſes, and renders men uſeleſs to ſociety, but promotes all manner of vice. To ſay a man is idle, is little better than to call him vicious. The mind, if not engaged in ſome uſeful purſuit, is conſtantly in queſt of ideal pleaſures, or impreſſed with the apprehenſion of ſome imaginary evil. From theſe ſources proceed moſt of the miſeries of mankind. Certainly man was never intended to be idle. Inactivity fruſtrates the very deſign of his creation; whereas an active life is the beſt guardian of virtue, and the greateſt preſervative of health.

CHAP.

CHAP. VI.

Of Sleep and Clothing.

SLEEP, as well as diet, ought to be duly regulated. Too little ſleep weakens the nerves, exhauſts the ſpirits and occaſions diſeaſes; and too much renders the mind dull, the body groſs, and diſpoſes to apoplexies, lethargies, and other complaints of a ſimilar nature. A medium ought therefore to be obſerved; but this is not eaſy to fix. Children require more ſleep than grown perſons, the laborious than the idle, and ſuch as eat and drink freely, than thoſe who live abſtemiouſly. Beſides, the real quantity of ſleep cannot be meaſured by time; as one perſon will be more refreſhed by five or ſix hours ſleep, than another by eight or ten.

Children may always be allowed to take as much ſleep as they pleaſe, but, for adults, ſix or ſeven hours is certainly ſufficient, and no one ought to exceed eight. Thoſe who lie a-bed more than eight hours may ſlumber, but they can hardly be ſaid to ſleep; ſuch generally toſs and dream away the forepart of the night, ſink to reſt towards morning, and doſe till noon. The beſt way to make ſleep ſound and refreſhing is to riſe betimes. The cuſtom of lying a-bed for nine or ten hours, not only makes the ſleep leſs refreſhing, but relaxes the ſolids, and greatly weakens the conſtitution.

Nature points out night as the proper ſeaſon for ſleep. Nothing more certainly deſtroys the conſtitution than night-watching. It is great pity that a practice ſo deſtructive to health ſhould be ſo much in

faſhion.

faſhion. How quickly the want of reſt in due ſeaſon will blaſt the moſt blooming complexion, or ruin the beſt conſtitution, is evident from the ghaſtly countenances of thoſe who, as the phraſe is, turn day into night and night into day.

To make ſleep refreſhing the following things are requiſite: Firſt, to take ſufficient exercise in the open air, to avoid ſtrong tea or coffee; next, to eat a light ſupper; and laſtly, to lie down with a mind as cheerful and ſerene as poſſible.

It is certain that too much exerciſe will prevent ſleep as well as too little. We ſeldom however hear the active and laborious complain of reſtleſs nights. It is the indolent and ſlothful who generally have theſe complaints. Is it any wonder that a bed of down ſhould not be refreſhing to a perſon who ſits all day in an eaſy chair? A great part of the pleaſure of life conſiſts in alternate reſt and motion; but they who neglect the latter can never reliſh the former. The labourer enjoys more true luxury in plain food and ſound ſleep, than is to be found in ſumptuous tables and downy pillows, where exerciſe is wanting.

That light ſuppers cauſe ſound ſleep is true even to a proverb. Many perſons, if they exceed the leaſt at that meal, are ſure to have uneaſy nights; and, if they fall aſleep, the load and oppreſſion on their ſtomach and ſpirits occaſion frightful dreams, broken and diſturbed repoſe, the night-mare, &c. Were the ſame perſons to go to bed with a light ſupper, or ſit up till that meal was pretty well digeſted, they would enjoy ſound ſleep, and riſe refreſhed and cheerful. There are indeed ſome people who cannot ſleep unleſs they have eat ſome ſolid food at night, but this does not imply the neceſſity of an heavy ſupper; beſides, theſe are generally perſons who have accuſtomed themſelves to this method,

and

and who do not take a ſufficient quantity of ſolid food and exerciſe.

Nothing more certainly diſturbs our repoſe than anxiety. When the mind is not at eaſe, one ſeldom enjoys ſound ſleep. The greateſt of human bleſſings flies the wretched, and viſits the happy, the chearful, and the gay. This is a ſufficient reaſon why every man ſhould endeavour to be as eaſy in his mind as poſſible when he goes to reſt. Many, by indulging grief and anxious thought, have baniſhed ſound ſleep ſo long, that they could never afterwards enjoy it.

Sleep, when taken in the fore-part of the night is generally reckoned moſt refreſhing. Whether this be the effect of habit or not, is hard to ſay; but as moſt people are accuſtomed to go early to bed when young, it may be preſumed that ſleep, at this ſeaſon, will prove moſt refreſhing to them ever after. Whether the fore part of the night be beſt for ſleep or not, ſurely the fore-part of the day is fitteſt both for buſineſs and amuſement. I hardly ever knew an early riſer who did not enjoy a good ſtate of health *.

Of Clothing.

The clothing ought to be ſuited to the climate. Cuſtom has, no doubt, a very great influence on this article; but no cuſtom can ever change the nature

* Men of every occupation, and in every ſituation of life, have lived to a good old age; nay ſome have enjoyed this bleſſing whoſe plan of living was by no means regular: but it conſiſts with obſervation, that all very old men have been early riſers. This is the only circumſtance attending longevity to which I never knew an exception.

It may be an unpopular idea, but I believe it to be a juſt one, that ſleeping on feather beds is very prejudicial to the health—a good matraſs would be ſufficiently ſoft for the moſt delicate, and is indiſpenſably neceſſary in conſumption, gravel, and many other diſeaſes.

of things ſo far, as to render the ſame clothing fit for an inhabitant of Nova Zembla and the iſland of Jamaica. It is not indeed neceſſary to obſerve an exact proportion between the quantity of clothes we wear, and the degree of latitude which we inhabit; but, at the ſame time, proper attention ought to be paid to it, as well as to the openneſs of the country, the frequency and violence of ſtorms, &c.

In youth, while the blood is hot and the perſpiration free, it is leſs neceſſary to cover the body with a great quantity of clothes; but, in the declining of life, when the ſkin becomes rigid and the body more cool, the clothing ſhould be increaſed. Many diſeaſes in the latter period of life proceed from the defect of perſpiration: theſe may, in ſome meaſure, be prevented by a ſuitable addition to the clothing, or by wearing ſuch as are better calculated for promoting the diſcharge from the ſkin, as clothes made of cotton, flannel, &c.*

The clothing ought likewiſe to be ſuited to the ſeaſon of the year. Cloathing may be warm enough for ſummer, which is by no means ſufficient for winter. The greateſt caution, however, is neceſſary in making theſe changes. We ought neither to put off our winter clothes too ſoon, nor to wear our ſummer ones too long. In this country, the winter often ſets in very early with great rigour, and we have frequently cold weather even after the commencement of the ſummer months. It would likewiſe be prudent not to make the change all at once, but to do it gradually; and indeed the changes of apparel in this climate ought to be very inconſider-

* The uſe of flannel ſhirts has become very general in America: They ſhould be changed once or twice a-week—No one need be afraid of becoming too delicate from the uſe of them.—They have quite a contrary effect.

able,

able, especially among those who have passed the meridian of life*.

Clothes often become hurtful by their being made subservient to the purposes of pride or vanity. Mankind, in all ages, seem to have considered clothes in this view; accordingly their fashion and figure have been continually varying, with very little regard either to health, the climate, or conveniency: a farthingale, for example, may be very necessary in hot southern climates, but surely nothing can be more ridiculous in the cold regions of the north.

Even the human shape is often attempted to be mended by dress, and those, who know no better, believe that mankind would be monsters without its assistance. All attempts of this nature are highly pernicious. The most destructive of them in this country is that of squeezing the stomach and bowels into as narrow a compass as possible, to procure, what is falsely called, a fine shape. By this practice the action of the stomach and bowels, the motion of the heart and lungs, and almost all the vital functions, are obstructed. Hence proceed indigestions, syncopes, or fainting fits, coughs, consumptions of the lungs, and other complaints so common among females.

The feet likewise often suffer by pressure. How a small foot came to be reckoned genteel, I will not

* *That colds kill more than plagues*, is an old observation; and, with regard to this country, it holds strictly true. Every person of discernment, however, will perceive, that most of the colds which prove so destructive to the inhabitants of Britain, and we may add in North America, are owing to their imprudence in changing clothes. A few warm days in March or April induce them to throw off their winter garments, without considering that our most penetrating colds generally happen in the spring. It is often necessary to change our clothing several times in the day.

pretend

pretend to ſay; but certain it is, that this notion has rendered many perſons lame. Almoſt nine-tenths of mankind are troubled with corns: a diſeaſe that is ſeldom or never occaſioned but by ſtrait ſhoes. Corns are not only very troubleſome, but by rendering people unable to walk, they may likewiſe be conſidered as the remote cauſe of other diſeaſes*.

The ſize and figure of the ſhoe ought certainly to be adapted to the foot. In children the feet are as well ſhaped as the hands, and the motion of the toes as free and eaſy as that of the fingers; yet few perſons in the advanced periods of life are able to make any uſe of their toes. They are generally, by narrow ſhoes, ſqueezed all of a heap, and often laid over one another in ſuch a manner as to be rendered altogether incapable of motion. Nor is the high heel leſs hurtful than the narrow toe. A lady may ſeem taller for walking on her tiptoes, but ſhe will never walk well in this manner. It ſtrains her joints, diſtorts her limbs, makes her ſtoop, and utterly deſtroys all her eaſe and gracefulneſs of motion: it is entirely owing to ſhoes with high heels and narrow toes, that not one female in ten can be ſaid to walk well.

In fixing on the clothes, due care ſhould be taken to avoid all tight bandages. Garters, buckles, &c. when drawn too tight, not only prevent the free motion and uſe of the parts about which they are bound, but likewiſe obſtruct the circulation of the blood, which prevents the equal nouriſhment and growth of theſe parts, and occaſions various diſeaſes. Tight bandages about the neck, as ſtocks, cravats, necklaces, &c. are extremely dangerous. They ob-

* We often ſee perſons who are rendered quite lame by the nails of their toes having grown into the fleſh, and frequently hear of mortifications proceeding from this cauſe. All theſe and many other inconveniences attending the feet, muſt be imputed ſolely to the uſe of ſhort and ſtrait ſhoes.

ſtruct

ſtruct the blood in its courſe from the brain, by which means headachs, vertigoes, apoplexies, and other fatal diſeaſes are often occaſioned.

The perfection of dreſs is to be eaſy and clean. Nothing can be more ridiculous, than for any one to make himſelf a ſlave to fine clothes. Such an one, and many ſuch there are, would rather remain as fixt as a ſtatue from morning till night, than diſcompoſe a ſingle hair, or alter the poſition of a pin. Were we to recommend any particular pattern for dreſs, it would be that which is worn by the people called Quakers. They are always neat, clean, and often elegant, without any thing ſuperfluous. What others lay out upon tawdry laces, ruffles, and ribbands, they beſtow upon ſuperior cleanlineſs. Finery is only the affectation of dreſs, and very often covers a great deal of dirt.

We ſhall only add, with regard to clothing, that it ought, not only to be ſuited to the climate, the ſeaſon of the year, and the period of life, but likewiſe to the temperature and conſtitution. Robuſt perſons are able to endure either cold or heat better than the delicate; conſequently may be leſs attentive to their clothing. But the preciſe quantity of clothes neceſſary for any perſon cannot be determined by reaſoning. It is entirely a matter of experience, and every man is the beſt judge for himſelf what quantity of clothes is neceſſary to keep him warm*.

* The celebrated Boerhaave uſed to ſay, that no body ſuffered by cold ſave fools and beggars; the latter not being able to procure clothes, and the former not having ſenſe to wear them. Be this as it may, I can with the ſtricteſt truth declare, that in many caſes where the powers of medicine had been tried in vain, I have cured the patient by recommending thick ſhoes, a flannel waiſtcoat and drawers, a pair of under ſtockings, or a flannel petticoat, to be worn during the cold ſeaſon at leaſt. I have known ſeveral inſtances of ſore throat from thin ſhoes.

CHAP.

CHAP. VII.

Of Intemperance.

A MODERN author* obſerves, that temperance and exerciſe are the two beſt phyſicians in the world. Temperance may juſtly be called the parent of health; yet numbers of mankind act as if they thought diſeaſes and death too ſlow in their progreſs, and, by intemperance and debauch, ſeem, as it were, to ſolicit their approach.

The danger of intemperance appears from the very conſtruction of the human body. Health depends on that ſtate of the ſolids and fluids which fits them for the due performance of the vital functions; and, while theſe go regularly on, we are ſound and well; but whatever diſturbs them, neceſſarily impairs health. Intemperance never fails to diſorder the whole animal œconomy; it hurts the digeſtion, relaxes the nerves, renders the different ſecretions irregular, vitiates the humors, and occaſions numberleſs diſeaſes.

The analogy between the nouriſhment of plants and animals affords a ſtriking proof of the danger of intemperance. Moiſture and manure greatly promote vegetation; yet an over quantity of either will entirely deſtroy it. The beſt things become hurtful, nay deſtructive, when carried to exceſs. Hence we learn, that the higheſt degree of human wiſdom conſiſts in regulating our appetites and paſſions ſo as to avoid all extremes. It is that chiefly which en-

* Roſſeau.

titles us to the character of rational beings. The ſlave of appetite will ever be the diſgrace of human nature.

The Author of Nature hath endued us with various paſſions, for the propagation of the ſpecies, the preſervation of the individual, &c. Intemperance is the abuſe of theſe paſſions; and moderation conſiſts in the proper regulation of them. Men, not contented with ſatisfying the ſimple calls of Nature, create artificial wants, and are perpetually in ſearch of ſomething that may gratify them; but imaginary wants can never be gratified. Nature is content with little; but luxury knows no bounds. Hence the epicure, the drunkard, and the debauchee, ſeldom ſtop in their career, till their money or their conſtitution fails: then, indeed, they generally ſee their error, when too late.

It is impoſſible to lay down fixt rules with regard to diet, on account of the different conſtitutions of mankind. The moſt ignorant perſon, however, certainly knows what is meant by exceſs; and it is in the power of every man, if he chooſes, to avoid it.

The great rule of diet is to ſtudy ſimplicity. Nature delights in the moſt plain and ſimple food, and every animal, except man, follows her dictates. Man, alone, riots at large, and ranſacks the whole creation in queſt of luxuries, to his own deſtruction. An elegant writer* of the laſt age, ſpeaks thus of intemperance in diet: "For my part, when I behold a faſhionable table ſet out in all its magnificence, I fancy "that I ſee gouts and dropſies, fevers and lethargies, "with other innumerable diſtempers, laying in ambuſcade among the diſhes."

Nor is intemperance in other things leſs deſtructive than in diet. How quickly does the immode-

* Addiſon,

rate purſuit of carnal pleaſures, or the abuſe of intoxicating liquors, ruin the beſt conſtitution! Indeed theſe vices generally go hand and hand. Hence it is that we ſo often behold the votaries of Bacchus and Venus, even before they have arrived at the prime of life, worn out with diſeaſes, and haſtening with ſwift pace to an untimely grave. Did men reflect on the painful diſeaſes and premature deaths, which are daily occaſioned by intemperance, it would be ſufficient to make them ſhrink back with horror from the indulgence even of their darling pleaſures.

Intemperance does not hurt its votaries alone; the innocent too often feel the direful effects of it. How many wretched orphans are to be ſeen embracing dunghills, whoſe parents, regardleſs of the future, ſpent in riot and debauch what might have ſerved to bring up their offspring in a decent manner? How often do we behold the miſerable mother, with her helpleſs infants, pining in want, while the cruel father is indulging his inſatiate appetites?

Families are not only reduced to miſery, but even extirpated, by intemperance. Nothing tends ſo much to prevent propagation, and to ſhorten the lives of children, as the intemperance of parents. The poor man who labours all day, and at night lies down contented with his humble fare, can boaſt a numerous offspring, while his pampered lord, ſunk in eaſe and luxury, often languiſhes without an heir to his ample fortunes. Even ſtates and empires feel the influence of intemperance, and riſe or fall as it prevails.

Inſtead of mentioning the different kinds of intemperance, and pointing out their influence upon health, we ſhall only, by way of example, make a few obſervations on one particular ſpecies of that vice, *viz.* the abuſe of intoxicating liquors.

Every

Every act of intoxication puts Nature to the expence of a fever, in order to discharge the poisonous draught. When this is repeated almost every day, it is easy to foresee the consequences. That constitution must be strong indeed, which is able long to hold out under a daily fever! but fevers occasioned by drinking do not always go off in a day; they frequently end in an inflammation of the breast, liver, or brain, and produce fatal effects.

Though the drunkard should not fall by an acute disease, he seldom escapes those of a chronic kind. Intoxicating liquors, when used to excess, weaken the bowels, and spoil the digestion; they destroy the power of the nerves, and occasion paralytic and convulsive disorders; they likewise heat and inflame the blood, destroy its balsamic quality, render it unfit for circulation, and the nourishment of the body. Hence obstructions, atrophies, dropsies, and consumptions of the lungs. These are the common ways in which drunkards make their exit. Diseases of this kind, when brought on by hard drinking, seldom admit of a cure*.

Many people injure their health by drinking, who seldom get drunk. The continual habit of soaking, as it is called, though its effects be not so violent, is not less pernicious. When the vessels are kept constantly full and upon the stretch, the different digestions can neither be duly performed, nor the humors properly prepared. Hence most people of this character are afflicted with the gout, the gravel, sores in the legs, &c. If these disorders do not appear, they are seized with low spirits, hypochondriacal affections, and other symptoms of indigestion.

* It is much to be feared that physicians have too often incautiously made drunkards of their patients, by prescribing spirits, or brandy and water, for their drink; which, however, are *never* necessary.

Conſumptions are now ſo common, that it is thought one-tenth of the inhabitants of great towns die of that diſeaſe. Hard drinking is no doubt one of the cauſes to which we muſt impute the increaſe of conſumptions. The great quantities of ſtrong viſcid malt liquor drank by the common people of England, cannot fail to render the blood ſizy and unfit for circulation; from whence proceed obſtructions, and inflammations of the lungs. There are few great ale-drinkers who are not phthiſical: nor is that to be wondered at, conſidering the glutinous and almoſt indigeſtible nature of ſtrong ale.

Thoſe who drink ardent ſpirits or ſtrong wines run ſtill greater hazard; theſe liquors heat and inflame the blood, and tear the tender veſſels of the lungs to pieces; yet ſo great is the conſumption of them in this country, that one would almoſt be induced to think that the inhabitants lived upon them*.

The habit of drinking proceeds frequently from misfortunes in life. The miſerable fly to it for relief. It affords them indeed a temporary eaſe. But, alas! this ſolace is ſhort-lived; and when it is over, the ſpirits ſink as much below their uſual tone as they had before been raiſed above it. Hence a repetition of the doſe becomes neceſſary, and every freſh doſe makes way for another, till the unhappy wretch becomes a ſlave to the bottle, and at length falls a ſacrifice to what at firſt perhaps was taken only as a medicine. No man is ſo dejected as the

* We may form ſome notion of the immenſe quantity of ardent ſpirits conſumed in Great-Britain from this circumſtance, that in the city of Edinburgh and its environs, beſides the great quantity of foreign ſpirits duly entered, and the ſtill greater quantity which is ſuppoſed to be ſmuggled, it is computed that above two thouſand private ſtills are conſtantly employed in preparing a poiſonous liquor called *Molaſſes*. The common people have got ſo univerſally into the habit of drinking this baſe ſpirit, that when a porter or labourer is ſeen reeling along the ſtreets, they ſay, *he has got molaſſed.*

drunkard

drunkard when his debauch is gone off. Hence it is, that thoſe who have the greateſt flow of ſpirits when the glaſs circulates freely, are of all others the moſt melancholy when ſober, and often put an end to their own miſerable exiſtence in a fit of ſpleen or ill humor.

Drunkenneſs not only proves deſtructive to health, but likewiſe to the faculties of the mind. It is ſtrange that creatures who value themſelves on account of a ſuperior degree of reaſon to that of brutes, ſhould take pleaſure in ſinking ſo far below them. Were ſuch as voluntarily deprive themſelves of the uſe of reaſon, to continue ever after in that condition, it would ſeem but a juſt puniſhment. Though this be not the conſequence of one act of intoxication, it ſeldom fails to ſucceed a courſe of it. By a habit of drinking, the greateſt genius is often reduced to a mere idiot*.

Intoxication is peculiarly hurtful to young perſons. It heats their blood, impairs their ſtrength, and obſtructs their growth; beſides, the frequent uſe of ſtrong liquors in the early part of life deſtroys any benefit that might ariſe from them afterwards. Thoſe who make a practice of drinking generous liquors when young, cannot expect to reap any benefit from them as a cordial in the decline of life.

* It is amazing that our improvements in arts, learning, and politeneſs, have not put the barbarous cuſtom of drinking to excels out of faſhion. It is indeed leſs common in South-Britain than it was formerly; but it ſtill prevails very much in the North, where this relic of barbarity is miſtaken for hoſpitality. There no man is ſuppoſed to entertain his gueſts well, who does not make them drunk. Forcing people to drink, is certainly the greateſt piece of rudeneſs that any man can be guilty of. Suppoſed manlineſs, complaiſance, or meer good nature, may induce a man to take his glaſs, if urged to it, at a time when he might as well take poiſon. The cuſtom of drinking to exceſs has long been out of faſhion in France; and, as it begins to loſe ground among the politer part of the Engliſh, we hope it will ſoon be baniſhed from every part of this iſland.

Drunkenneſs is not only in itſelf a moſt abominable vice, but is an inducement to many others. There is hardly any crime ſo horrid that the drunkard will not perpetrate for the love of liquor. We have known mothers ſell their children's clothes, the food that they would have eat, and afterwards even the infants themſelves, in order to purchaſe the accurſed draught.

A very abſurd argument in favour of ſpirits has been uſed, from obſerving, that ſome perſons who made a very free uſe of them have lived to old age: we ſometimes ſee an old ſoldier, and an old ſailor; but no one will ſuppoſe that a military or a ſea-faring life, are favourable to longevity.

CHAP. VIII.

Of Cleanlineſs.

THE want of cleanlineſs is a fault which admits of no excuſe. Where water can be had for nothing, it is ſurely in the power of every perſon to be clean. The continual diſcharge from our bodies by perſpiration, renders frequent change of apparel neceſſary. Changing apparel greatly promotes the ſecretion from the ſkin, ſo neceſſary for health. When that matter, which ought to be carried off by perſpiration, is either retained in the body, or reſorbed from dirty clothes, it muſt occaſion diſeaſes.

Diſeaſes of the ſkin are, in a great meaſure owing to want of cleanlineſs. They may indeed be caught by infection, or brought on by poor living, unwholeſome food, &c. but they will ſeldom continue long where

where cleanlineſs prevails. To the ſame cauſe muſt we impute the various kinds of vermin which infeſt the human body, houſes, &c. Theſe may always be baniſhed by cleanlineſs alone, and wherever they abound, we have reaſon to believe it is neglected.

One common cauſe of malignant fevers, is the want of cleanlineſs. Theſe fevers commonly begin among the inhabitants of cloſe dirty houſes, who breathe unwholeſome air, take little exerciſe, and wear dirty clothes. There the infection is generally hatched, which often ſpreads far and wide, to the deſtruction of many. Hence cleanlineſs may be conſidered as an object of public attention. It is not ſufficient that I be clean myſelf, while the want of it in my neighbour affects my health as well as his own. If dirty people cannot be removed as a common nuiſance, they ought at leaſt to be avoided as infectious. All who regard their health ſhould keep at a diſtance even from their habitations.

In places where great numbers of people are collected, cleanlineſs becomes of the utmoſt importance. It is well known that infectious diſeaſes are communicated by tainted air. Every thing, therefore, which tends to pollute the air, or ſpread the infection, ought with the utmoſt care to be guarded againſt. For this reaſon, in great towns, no filth of any kind, ſhould be permitted to lie upon the ſtreets.

In many great towns the ſtreets are little better than dunghills, being frequently covered with aſhes, dung, and naſtineſs of every kind. Even ſlaughter-houſes, or killing ſhambles, are often to be ſeen in the very centre of great towns. The putrid blood, excrements, &c. with which theſe places are generally covered, cannot fail to taint the air, and render it unwholeſome. How eaſily might this be prevented by active magiſtrates, who have it always it their

power to make proper laws relative to things of this nature, and to enforce the obſervance of them!

We are ſorry to ſay, that the importance of general cleanlineſs does not ſeem to be ſufficiently underſtood by the magiſtrates of moſt great towns in Britain; though health, pleaſure, and delicacy, all conſpire to recommend an attention to it. Nothing can be more agreeable to the ſenſes, more to the honour of the inhabitants, or more conducive to their health, than a clean town; nor can any thing impreſs a ſtranger with a more diſreſpectful idea of any people than its oppoſite. Whatever pretenſions people may make to learning, politeneſs, or civilization, we will venture to affirm, that while they neglect cleanlineſs, they are in a ſtate of barbarity*.

The peaſants in moſt countries ſeem to hold cleanlineſs in a ſort of contempt. Were it not for the open ſituation of their houſes, they would often feel the bad effects of this diſpoſition. One ſeldom ſees a farm-houſe without a dunghill before the door, and frequently the cattle and their maſters lodge under the ſame roof. Peaſants are likewiſe extremely careleſs with reſpect to change of apparel, keeping their houſes, &c. clean. This is merely the effect of indolence and a dirty diſpoſition. Habit may indeed render it leſs diſagreeable to them, but no habit, can

* In ancient Rome the greateſt men did not think cleanlineſs an object unworthy of their attention. Pliny ſays, the *Cloacæ*, or common ſewers for the conveyance of filth and naſtineſs from the city, were the greateſt of all the public works; and beſtows higher encomiums upon Tarquinus, Agrippa, and others who made and improved them, than on thoſe who atchieved the greateſt conqueſts.

How truly great does the emperor Trajan appear, when giving directions to Pliny his proconſul, concerning the making of a common ſewer for the health and convenience of a conquered city?

ever

ever make it ſalutary to wear dirty clothes or breathe unwholeſome air.

As many articles of diet come through the hands of peaſants, every method ſhould be taken to encourage and promote habits of cleanlineſs among them. This, for example, might be done by giving a ſmall premium to the perſon who brings the cleaneſt and beſt article of any kind to market, as butter, cheeſe, &c. and by puniſhing ſeverely thoſe who bring it dirty. The ſame method ſhould be taken with butchers, bakers, brewers, and all who are employed in preparing the neceſſaries of life.

In camps the ſtricteſt regard ſhould be paid to cleanlineſs. By negligence in this matter, infectious diſeaſes are often ſpread amongſt a whole army; and frequently more die of theſe than by the ſword. The Jews during their encampments in the wilderneſs, received particular inſtructions with reſpect to cleanlineſs*. The rules enjoined them ought to be obſerved by all in the like ſituation. Indeed the whole ſyſtem of laws delivered to that people has a manifeſt tendency to promote cleanlineſs. Whoever conſiders the nature of their climate, the diſeaſes to which they were liable, and their dirty diſpoſition, will ſee the propriety of ſuch laws.

It is remarkable that in moſt eaſtern countries, cleanlineſs makes a great part of their religion. The Mahometan, as well as the Jewiſh religion, enjoins various bathings, waſhings, and purifications. No doubt theſe might be deſigned to repreſent inward purity; but they were at the ſame time calculated for the preſervation of health. However

* Thou ſhalt have a place alſo without the camp, whither thou ſhalt go forth abroad; and thou ſhalt have a paddle upon thy weapon: and it ſhall be when thou ſhalt eaſe thyſelf abroad, thou ſhalt dig therewith, and ſhalt turn back, and cover that which cometh from thee, &c. Deuter. chap. xxii. ver. 12, 13.

whimſical

whimſical theſe waſhings may appear to ſome, few things would tend more to prevent diſeaſes than a proper attention to many of them. Were every perſon for example, after viſiting the ſick, handling a dead body, or touching any thing that might convey infection, to waſh before he went into company, or ſat down to meat, he would run leſs hazard either of catching the infection himſelf, or of communicating it to others*.

Frequent waſhing not only removes the filth and ſordes which adhere to the ſkin, but likewiſe promotes the perſpiration, braces the body, and enlivens the ſpirits. How refreſhed, how cheerful, and agreeable does one feel on being ſhaved, waſhed, and ſhifted; eſpecially when theſe offices have been neglected longer than uſual.

The eaſtern cuſtom of waſhing the feet, though leſs neceſſary in this country, is nevertheleſs a very agreeable piece of cleanlineſs, and contributes greatly to the preſervation of health. The ſweat and dirt with which theſe parts are frequently covered, cannot fail to obſtruct the perſpiration. This piece of cleanlineſs would often prevent colds and fevers. Were people careful to bathe their feet and legs in lukewarm water at night, after being expoſed to cold or wet through the day, they would ſeldom experience the ill effects which often proceed from theſe cauſes.

A proper attention to cleanlineſs is no where more neceſſary than on ſhipboard. If epidemical diſtempers break out there, no one can be ſafe. The beſt way to prevent them, is to take care that the whole company be cleanly in their clothes, bedding, &c. When infectious diſeaſes do break out, cleanlineſs is

* I know a phyſician, who from habit, ſeldom or never enters his houſe without waſhing his hands.

the

the moſt likely means to prevent their ſpreading: it is likewiſe neceſſary to prevent their returning afterwards, or being conveyed to other places. For this purpoſe, the clothes, bedding, &c. of the ſick ought to be carefully waſhed, and fumigated with brimſtone. Infection will lodge a long time in dirty clothes, and afterwards break out in the moſt terrible manner*.

In places where great numbers of ſick people are collected together, cleanlineſs ought to be moſt religiouſly obſerved. The very ſmell in ſuch places is often ſufficient to make one ſick. It is eaſy to imagine what effect that is likely to have upon the diſeaſed. In an hoſpital or infirmary, where cleanlineſs is neglected, a perſon in perfect health has a greater chance to become ſick, than a ſick perſon has to get well.

Few things are more unaccountable than that neglect, or rather dread of cleanlineſs, which appears among thoſe who have the care of the ſick; they think it almoſt criminal to ſuffer any thing that is clean to come near a perſon in a fever, for example, and would rather allow him to wallow in all manner of filth, than change the leaſt bit of his linen. If cleanlineſs be neceſſary for perſons in health, it is certainly more ſo for the ſick. Many diſeaſes may be cured by cleanlineſs alone; moſt of them might be mitigated by it; and, where it is neglected, the ſlighteſt diſorders are often changed into the moſt malignant. The ſame miſtaken care which prompted people to prevent the leaſt admiſſion of freſh air to the ſick, ſeems to have induced them to keep them

* The beſt mode of purifying a bed is to expoſe it to an heavy rain, then dry it; this does not in the leaſt injure the bed.

dirty. Both these destructive prejudices will, we hope, be in time entirely eradicated.

Cleanliness is certainly agreeable to our nature. We cannot help approving it in others, even though we should not practise it ourselves. It sooner attracts our regard than even finery itself, and often gains esteem where that fails. It is an ornament to the highest as well as the lowest station, and cannot be dispensed with in either. Few virtues are of more importance to society than general cleanliness. It ought to be carefully cultivated every where; but in populous cities it should be almost revered*.

CHAP. IX.

Of Infection.

MANY diseases are infectious. Every person ought, therefore, as far as he can, to avoid all communication with the diseased. The common practice of visiting the sick, though often well meant, has many ill consequences. Far be it from us to discourage any act of charity or benevolence, especially towards those in distress; but we cannot help blaming such as endanger their own or their neighbour's lives by a mistaken friendship or an impertinent curiosity.

* The streets of great towns, where water can be had, ought to be washed every day. This is the only effectual method for keeping them thoroughly clean; and, upon trial, we are persuaded it will be found the cheapest.

Some of the most dreadful diseases incident to human nature might, in my opinion, be entirely eradicated by cleanliness.

The

The houſes of the ſick, eſpecially in the country, are generally crowded from morning 'till night with idle viſitors. It is cuſtomary, in ſuch places, for ſervants and young people to wait upon the ſick by turns, and even to ſit up with them all night. It would be a miracle indeed ſhould ſuch always eſcape. Experience teaches us the danger of this conduct. People often catch fevers in this way, and communicate them to others, till at length they become epidemic.

It would be thought highly improper, for one who had not had the ſmall-pox, to wait upon a patient in that diſeaſe; yet many other fevers are almoſt as infectious as the ſmall-pox, and not leſs fatal. Some imagine, that fevers prove more fatal in villages than in great towns, for want of proper medical aſſiſtance. This may ſometimes be the caſe; but we are inclined to think it oftener proceeds from the caſe above mentioned.

Were a plan to be laid down for communicating infection, it could not be done more effectually than by the common method of viſiting the ſick. Such viſitors, not only endanger themſelves and their connections, but likewiſe hurt the ſick. By crowding the houſe, they render the air unwholeſome, and by their private whiſpers and diſmal countenances, diſturb the imagination of the patient, and depreſs his ſpirits. Perſons who are ill, eſpecially in fevers, ought to be kept as quiet as poſſible. The ſight of ſtrange faces, and every thing that diſturbs the mind, hurts them.

The common practice in country places of inviting great numbers of people to funerals, and crowding them into the ſame apartment where the corpſe lies, is another way of ſpreading infection. The infection does not always die with the patient.

Every

Every thing that comes into contact with his body while alive, receives the contagion, and ſome of theſe things, as clothes, blankets, &c. will retain it for a long time. Perſons who die of infectious diſorders, ought not to lie long unburied; and people ſhould keep as much as poſſible at a diſtance from them.

It would tend greatly to prevent the ſpreading of infectious diſeaſes, if thoſe in health were kept at a proper diſtance from the ſick. The Jewiſh Legiſlator, among many other wiſe inſtitutions for preſerving health, has been peculiarly attentive to the means of preventing infection, or *deſilement* as it is called, either from a diſeaſed perſon or a dead body. In many caſes, the diſeaſed were to be ſeparated from thoſe in health; and it was deemed a crime, even to approach their habitations. If a perſon only touched a diſeaſed or dead body, he was appointed to waſh himſelf in water, and to keep for ſome time at a diſtance from ſociety.

Infectious diſeaſes are often communicated by clothes. It is extremely dangerous to wear apparel which has been worn by the diſeaſed, unleſs it has been well waſhed and fumigated, as infection may lodge a long time in it, and afterwards produce very tragical effects. This ſhews the danger of buying at random, the clothes which have been worn by other people.

Infectious diſorders are frequently imported. Commerce, together with the riches of foreign climes, brings us alſo their diſeaſes. Theſe do often more than counterbalance all the advantages of that trade, by means of which they are introduced. It is to be regretted, that ſo little care is commonly beſtowed, either to prevent the introduction or ſpreading of infectious maladies. Some attention, indeed, is gerally

nerally paid to the plague; but other diſeaſes paſs unregarded*.

Infection is often ſpread through cities, by jails, hoſpitals, &c. Theſe are frequently ſituated in the very middle of populous towns; and when infectious diſeaſes break out in them, it is impoſſible for the inhabitants to eſcape. Did magiſtrates pay any regard to the health of the people, this evil might be eaſily remedied.

Many are the cauſes which tend to diffuſe infection through populous cities. The beſt advice that we can give to ſuch as are obliged to live in large cities is, to chooſe an open ſituation; to avoid narrow, dirty, crowded ſtreets; to keep their own houſe and offices clean; and to be as much abroad in the open air as their time will permit.

It would tend greatly to prevent the ſpreading of infectious diſeaſes, were proper nurſes every where employed to take care of the ſick. This might often ſave a family, or even a whole town, from being infected by one perſon. We do not mean that people ſhould abandon their friends or relations in diſtreſs, but only to put them on their

* Were the tenth part of the care taken to prevent the importation of diſeaſes, that there is to prevent ſmuggling, it would be attended with many happy conſequences. This might eaſily be done, by appointing a phyſician at every conſiderable ſea-port, to inſpect the ſhip's company, paſſengers, &c. before they came aſhore, and, if any fever or other infectious diſorder prevailed, to order the ſhip to perform a ſhort quarantine, and to ſend the ſick to ſome hoſpital or proper place to be cured. He might likewiſe order all the clothes, bedding, &c. which had been uſed by the ſick during the voyage, to be either deſtroyed, or thoroughly cleanſed by fumigation, &c. before any of it were ſent a-ſhore. A ſcheme of this kind, if properly conducted, would prevent many fevers, and other infectious diſeaſes, from being brought by ſailors into ſea-port towns, and, by this means diffuſed all over the country.

guard

guard againſt being too much in company with thoſe who are afflicted with diſeaſes of an infectious nature.

Such as wait upon the ſick in infectious diſeaſes, ſhould ſtuff their noſes with tobacco, or ſome other ſtrong ſmelling herb, as rue, tanſy, or the like. They ought likewiſe to keep their patient very clean, to ſprinkle the room where he lies with vinegar, or other ſtrong acids, frequently to admit a ſtream of freſh air into it, and to avoid the ſmell of his breath as much as they can. They ought never to go into company without having changed their clothes and waſhed their hands; otherwiſe, if the diſeaſe be infectious, they will in all probability carry the contagion along with them.

However trifling it may appear to inconſiderate perſons, we will venture to affirm, that a due attention to thoſe things which tend to diffuſe infection, would be of great importance in preventing diſeaſes. As moſt diſeaſes are in ſome degree infectious, no one ſhould continue long with the ſick, except the neceſſary attendants. I mean not, however, by this caution, to deter thoſe whoſe duty or office leads them to wait upon the ſick, from ſuch a laudable and neceſſary employment.

Many things are in the power of the magiſtrate, which would tend to prevent the ſpreading of infection; as the promoting of public cleanlineſs; removing jails, hoſpitals, burying-grounds, and other places where infection may be generated, at a proper diſtance from great towns*; widening the ſtreets; pulling down uſeleſs walls, and taking all methods to promote a free circulation of air, through every part

* The ancients would not ſuffer even the temples of their gods, where the ſick reſorted, to be built within the walls of a city.

of the town, &c. Public hoſpitals, or proper places of reception for the ſick, provided they were kept clean, well ventilated, and placed in an open ſituation, would likewiſe tend to prevent the ſpreading of infection. Such places of reception would prevent the poor, when ſick, from being viſited by their idle or officious neighbours.

We are not, however, to learn, that hoſpitals, inſtead of preventing infection, may become the means of diffuſing it. When they are placed in the middle of great towns; when numbers of patients are crowded together in ſmall apartments; when there is a conſtant communication kept up between the citizens and the patients, and when cleanlineſs and ventilation are neglected, they become neſts for hatching diſeaſes, and every one who goes into them, not only runs a riſk of receiving infection himſelf, but likewiſe of communicating it to others. This, however, is not the fault of the hoſpitals, but of thoſe who have the management of them. It were to be wiſhed, that they were both more numerous, and upon a more reſpectable footing, as that would induce people to go into them with leſs reluctance. This is the more to be deſired, becauſe moſt of the putrid fevers, ſo called, and other infectious diſorders break out among the poor, and are by them communicated to thoſe in better circumſtances. Were proper attention paid to the firſt appearances of ſuch diſorders, and the patients early conveyed to an hoſpital, we ſhould ſeldom ſee thoſe malignant fevers, which are almoſt as infectious as the plague, become epidemic.

CHAP. X.

Of the Paſſions.

THE paſſions have great influence, both in the cauſe and cure of diſeaſes. How the mind affects the body, will, in all probability, ever remain a ſecret. It is ſufficient for us to know, that there is eſtabliſhed a reciprocal influence between the mental and corporeal parts, and that whatever injures the one, diſorders the other.

Of Anger.

The paſſion of *anger* ruffles the mind, diſtorts the countenance, hurries on the circulation of the blood, and diſorders the whole vital and animal functions. It often occaſions fevers, and other acute diſeaſes; and ſometimes even ſudden death. This paſſion is peculiarly hurtful to the delicate, and thoſe of weak nerves. I have known ſuch perſons frequently loſe their lives by a violent fit of anger, and would adviſe them to guard againſt the exceſs of this paſſion, with the utmoſt care.

It is not indeed always in our power to prevent being angry; but we may ſurely avoid harbouring reſentment in our breaſt. Reſentment preys upon the mind, and occaſions the moſt obſtinate chronical diſorders, which gradually waſte the conſtitution. Nothing ſhews true greatneſs of mind, more than to forgive injuries; it promotes the peace of ſociety, and greatly conduces to our own eaſe, health, and felicity.

Such

Such as value health, ſhould avoid violent guſts of anger, as they would the moſt deadly poiſon. Neither ought they to indulge reſentment, but to endeavour at all times to keep their minds calm and ſerene. Nothing tends ſo much to the health of the body, as a conſtant tranquillity of the mind.

Of Fear.

The influence of *fear*, both in occaſioning and aggravating diſeaſes, is very great. No man ought to be blamed for a decent concern about life; but too great a deſire to preſerve it, is often the cauſe of loſing it. Fear and anxiety, by depreſſing the ſpirits, not only diſpoſe us to diſeaſes, but often render thoſe diſeaſes fatal, which an undaunted mind would overcome. *

Sudden fear has generally violent effects. Epileptic fits, and other convulſive diſorders, are often occaſioned by it. Hence the danger of that practice, ſo common among young people, of frightening one another. Many have loſt their lives, and others have been rendered miſerable by frolics of this kind. It is dangerous to tamper with the human paſſions. The mind may eaſily be thrown into ſuch diſorder, as never again to act with regularity.

But the gradual effects of fear prove moſt hurtful. The conſtant dread of ſome future evil, by dwelling upon the mind, often occaſions the very evil itſelf. Hence it comes to paſs, that ſo many die of thoſe very diſeaſes, of which they long had a dread, or which had been impreſſed on their minds by ſome accident or fooliſh prediction. This, for example, is

* It were to be wiſhed, that epidemics might alarm without cauſing terror. And great advantages would reſult, from accuſtoming young perſons to a ſick room: thus every family would afford nurſes.

often the case with women in childbed. Many of those who die in that situation, are impressed with the notion of their death, a long time before it happens; and there is reason to believe, that this impression is often the cause of it.

The methods taken to impress the minds of women with the apprehensions of the great *pain* and *peril* of child-birth, are very hurtful. Very few women die in labour, though many lose their lives after it; which may be thus accounted for. A woman, after delivery, finding herself weak and exhausted, immediately apprehends she is in danger; but this fear seldom fails to obstruct the necessary evacuations, upon which her recovery depends. Thus the sex frequently fall a sacrifice to their own imaginations, when there would be no danger, did they apprehend none.

It seldom happens, that two or three women in a great town die in child-bed, but their death is followed by many others. Every woman of their acquaintance who is with child, dreads the same fate, and the disease becomes epidemical by the mere force of imagination. This should induce pregnant women to despise fear, and by all means, to avoid those tattling gossips, who are continually buzzing in their ears the misfortunes of others. Every thing that may in the least alarm a pregnant or child-bed woman, ought with the greatest care to be guarded against.

Many women have lost their lives in child-bed, by the old superstitious custom, still kept up in most parts of Britain, and far too much in America, of tolling the parish bell for every person who dies. People who think themselves in danger, are very inquisitive; and if they come to know, that the bell tolls for one who died in the same situation with themselves, what must be the consequence? At any rate,

rate, they are apt to ſuppoſe that this is the caſe, and it will often be found a very difficult matter to perſuade them of the contrary.

But this cuſtom is not pernicious to child-bed women only. It is hurtful in many other caſes. When low fevers, in which it is difficult to ſupport the patient's ſpirits, prevail, what muſt be the effect of a funeral peal ſounding five or ſix times a-day in his ears? No doubt his imagination will ſuggeſt that others died of the ſame diſeaſe under which he labours. This apprehenſion will have a greater tendency to depreſs his ſpirits, than all the cordials of which medicine can boaſt will have to raiſe them.

If this uſeleſs piece of ceremony cannot be aboliſhed, we ought to keep the ſick as much from hearing it as poſſible, and from every other thing that may tend to alarm them. So far, however, is this from being generally attended to, that many make it their buſineſs to viſit the ſick, on purpoſe to whiſper diſmal ſtories in their ears. Such may paſs for ſympathizing friends, but they ought rather to be conſidered as enemies. All who wiſh well to the ſick ought to keep ſuch perſons at the greateſt diſtance from them.

A cuſtom has long prevailed among phyſicians, of prognoſticating, as they call it, the patient's fate, or foretelling the iſſue of the diſeaſe. Vanity no doubt introduced this practice, and ſtill ſupports it, in ſpite of common ſenſe and the ſafety of mankind. It may indeed be alleged, that the doctor does not declare his opinion before the patient. So much the worſe. A ſenſible patient had better hear what the doctor ſays than learn it from the diſconſolate looks, the watery eyes, and the broken whiſpers of thoſe about him. It ſeldom happens, when the doctor gives an unfavourable opinion, that it can be concealed from the patient. The very embarraſſment

which the friends and attendants ſhew in diſguiſing what he has ſaid, is generally ſufficient to diſcover the truth.

Kind Heaven has, for the wiſeſt ends, concealed from mortals their fate; and we do not ſee what right any man has to announce the death of another, eſpecially if ſuch a declaration has a chance to kill him. Mankind are indeed very fond of prying into future events, and ſeldom fail to ſolicit the phyſician for his opinion. A doubtful anſwer, however, or one that may tend rather to encourage the hopes of the ſick, is ſurely the moſt ſafe. This conduct could neither hurt the patient nor the phyſician. Nothing tends more to deſtroy the credit of phyſic than thoſe bold prognoſticators, who, by the by, are generally the moſt ignorant of the faculty. The miſtakes which daily happen in this way are ſo many ſtanding proofs of human vanity, and the weakneſs of ſcience.

We readily admit that there are caſes where the phyſician ought to give intimation of the patient's danger to ſome of his near connections; though even this ought always to be done with the greateſt caution: but it never can be neceſſary in any caſe that the whole town and country ſhould know, immediately after the doctor has made his firſt viſit, *that he has no hopes of his patient's recovery.* Perſons whoſe impertinent curioſity leads them to queſtion the phyſician with regard to the fate of his patient, certainly deſerve no other than an evaſive anſwer.

The vanity of foretelling the fate of the ſick is not peculiar to the faculty. Others follow their example, and thoſe who think themſelves wiſer than their neighbours often do much hurt in this way. Humanity ſurely calls upon every one to comfort the ſick, and not to add to their affliction by alarming their fears. A friend, or even a phyſician, may often do more good by a mild and ſympathizing behaviour

haviour than by medicine, and ſhould never neglect to adminiſter that greateſt of all cordials, HOPE, when he can do it with conſiſtency.

Of Grief.

Grief is the moſt deſtructive of all the paſſions. Its effects are permanent, and when it ſinks deep into the mind, it generally proves fatal. Anger and fear, being of a more violent nature, ſeldom laſt long; but grief often changes into a fixed melancholy, which preys upon the ſpirits, and waſtes the conſtitution. This paſſion ought not to be indulged. It may generally be conquered at the beginning; but when it has gained ſtrength, all attempts to remove it are vain.

No man can prevent misfortunes in life; but it ſhews true greatneſs of mind to bear them with ſerenity. Many perſons make a merit of indulging grief, and when misfortunes happen, they obſtinately refuſe all conſolation, till the mind, overwhelmed with melancholy, ſinks under the load. Such conduct is not only deſtructive to health, but utterly inconſiſtent with reaſon, religion, and common ſenſe.

Change of ideas is as neceſſary for health as change of poſture. When the mind dwells long upon one ſubject, eſpecially of a diſagreeable nature, it hurts the whole functions of the body. Hence grief indulged ſpoils the digeſtion and deſtroys the appetite; by which means the ſpirits are depreſſed, the nerves relaxed, the bowels inflated with wind, and the humors, for want of freſh ſupplies of chyle, vitiated. Thus many an excellent conſtitution has been ruined by a family misfortune, or any thing which occaſions exceſſive grief.

It is not probable, that any perſon of a dejected mind ſhould enjoy health. Life may indeed be dragged out for a few years; but whoever would live to a good old age, muſt be good-humored and cheerful. This indeed is not altogether in our own power; yet our temper of mind, as well as our actions, depend greatly upon ourſelves. We can either aſſociate with cheerful or melancholy companions, mingle in the amuſements and offices of life, or ſit ſtill and brood over our calamities as we chuſe. Theſe, and many ſuch things, are certainly in our power, and from theſe the mind generally takes its caſt.

The variety of ſcenes which preſent themſelves to the ſenſes, were certainly deſigned to prevent our attention from being too long fixed upon any one object. Nature abounds with variety, and the mind, unleſs fixed down by habit, delights in contemplating new objects. This at once points out the method of relieving the mind in diſtreſs. Turn the attention frequently to new objects. Examine them for ſome time. When the mind begins to recoil, ſhift the ſcene. By this means a conſtant ſucceſſion of new ideas may be kept up, till the diſagreeable ones entirely diſappear. Thus, travelling, the ſtudy of any art or ſcience, reading or writing on ſuch ſubjects as deeply engage the attention, will ſooner expel grief than the moſt ſprightly amuſements.

It has already been obſerved that the body cannot be healthy unleſs it be exerciſed; neither can the mind. Indolence nouriſhes grief. When the mind has nothing elſe to think of but calamities, no wonder that it dwells there. Few people who purſue buſineſs with attention, are hurt by grief. Inſtead therefore of abſtracting ourſelves from the world or buſineſs, when misfortunes happen, we ought to engage in it with more than uſual attention, to diſcharge

charge with double diligence the functions of our ſtation, and to mix with friends of a cheerful and ſocial temper.

Innocent amuſements are by no means to be neglected. Theſe, by leading the mind inſenſibly to the contemplation of agreeable objects, help to diſpel the gloom which misfortunes caſt over it. They make time ſeem leſs tedious, and have many other happy effects. *

Some perſons, when overwhelmed with grief, betake themſelves to drinking. This is making the cure much worſe than the diſeaſe. It ſeldom fails to end in the ruin of fortune, character, and conſtitution.

Of Love.

Love is perhaps the ſtrongeſt of all the paſſions; at leaſt, when it becomes violent, it is leſs ſubject to the control either of the underſtanding or will, than any of the reſt. Fear, anger, and ſeveral other paſſions, are neceſſary for the preſervation of the individual, but love is neceſſary for the continuation of the ſpecies itſelf: it was therefore proper that this paſſion ſhould be deeply rooted in the human breaſt.

Though love be a ſtrong paſſion, it is ſeldom ſo rapid in its progreſs as ſeveral of the others. Few perſons fall deſperately in love all at once. We would therefore adviſe every one, before he tampers with this paſſion, to conſider well the probability and propriety of his being able to obtain the object of his love. When that is not likely, he ſhould avoid every occaſion of increaſing it. He ought immediately to fly the company of the beloved object;

* After all that has been ſaid, there is nothing which can relieve the mind from grief with ſo much certainty as a calm and humble reſignation to the Divine Will.

to apply his mind attentively to buſineſs or ſtudy; to take amuſement; and above all, to endeavour, if poſſible, to find another object which may engage his affections, and which it may be in his power to obtain.

There is no paſſion with which people are ſo ready to tamper as love, although none is more dangerous. Some men make love for amuſement, others from mere vanity, or on purpoſe to ſhew their conſequence with the fair. This is perhaps the greateſt piece of cruelty which any one can be guilty of. What we eagerly wiſh for we eaſily credit. Hence the too credulous fair are often betrayed into a ſituation which is truly deplorable, before they are able to diſcover that the pretended lover was only in jeſt. But there is no jeſting with this paſſion. When love has got to a certain height, it admits of no other cure but the poſſeſſion of its object, which in this caſe ought always if poſſible and proper to be obtained. *

Of Religious Melancholy.

Many perſons of a religious turn of mind behave as if they thought it a crime to be cheerful. They imagine the whole of religion conſiſts in certain mortifications, or denying themſelves the ſmalleſt indulgence, even of the moſt innocent amuſements. A

* The conduct of parents with regard to the diſpoſal of their children in marriage, is often very blameable. An advantageous match is the too conſtant aim of parents; while their children often ſuffer a real martyrdom betwixt their inclinations and duty. The firſt thing which parents ought to conſult in diſpoſing their children in marriage, is certainly their inclinations. Were due regard always paid to theſe, there would be fewer unhappy couples, and parents would not have ſo often cauſe to repent the ſeverity of their conduct, after a ruined conſtitution, a loſt character, or a diſtracted mind, has ſhewn them their miſtake.

perpetual

perpetual gloom hangs over their countenances, while the deepeſt Melancholy preys upon their minds. At length the faireſt proſpects vaniſh, every thing puts on a diſmal appearance, and thoſe very objects which ought to give delight afford nothing but diſguſt. Life itſelf becomes a burden, and the unhappy wretch, perſuaded that no evil can equal what he feels, often puts an end to his own miſerable exiſtence.

It is a great pity that even religion ſhould be ſo far perverted, as to become the cauſe of thoſe very evils which it was deſigned to cure. Nothing can be better calculated than *True Religion*, to raiſe and ſupport the mind of its votaries under every affliction that can befal them. It teaches them that even the ſufferings of this life are preparatory to the happineſs of the next; and that all who perſiſt in a courſe of virtue ſhall at length arrive at complete felicity.

Perſons whoſe buſineſs it is to recommend religion to others, ſhould beware of dwelling too much on gloomy ſubjects. *That peace and tranquillity of mind, which true religion is calculated to inſpire, is a more powerful argument in its favour than all the terrors that can be uttered.* Terror may indeed deter men from outward acts of wickedneſs, but can never inſpire them with that love of God, and real goodneſs of heart, in which alone true religion conſiſts.

To conclude; the beſt way to counteract the violence of any paſſion, is to keep the mind cloſely engaged in ſome uſeful purſuit.

CHAP.

CHAP. XI.

Of the Common Evacuations.

THE principal evacuations from the human body are thoſe by *ſtool*, *urine*, and *inſenſible perſpiration*. None of theſe can be long obſtructed without impairing the health. When that which ought to be thrown out of the body is too long retained, it not only occaſions a *pleʻhora*, or too great fulneſs of the veſſels, but acquires many qualities which are hurtful to the health.

Of the Evacuation by Stool.

Few things conduce more to health than keeping the body regular. When the *fæces* lie too long in the bowels, they vitiate the humors; and when they are too ſoon diſcharged, the body is not ſufficiently nouriſhed. A medium is therefore to be deſired, which can only be obtained by regularity in diet, ſleep, and exerciſe. Whenever the body is not regular, there is reaſon to ſuſpect a fault in one or other of theſe.

Perſons who eat and drink at irregular hours, and who eat various kinds of food, and drink of ſeveral different liquors at every meal, have no reaſon to expect either that their digeſtion will be good, or their diſcharges regular. Irregularity in eating and drinking diſturbs every part of the animal œconomy, and never fails to occaſion diſeaſes. Either too much or too little food will have this effect. The former indeed generally occaſions looſeneſs, and the latter coſtiveneſs;

coſtiveneſs; but both have a tendency to hurt the health.

It would be difficult to aſcertain the exact number of ſtools which may be conſiſtent with health, as theſe differ in the different periods of life, in different conſtitutions, and even in the ſame conſtitution under a different regimen of diet, exerciſe, &c. It is however generally allowed, that one ſtool a-day is ſufficient for an adult, and that leſs is hurtful. But this, like moſt general rules, admits of many exceptions. I have known a few perſons in perfect health who did not go to ſtool above once a-week. Such a degree of coſtiveneſs however is not ſafe; though the perſon who labours under it may for ſome time enjoy tolerable health, yet at length it may occaſion diſeaſes.

One method of procuring a ſtool every day is to riſe betimes, and go abroad in the open air. Not only the poſture in bed is unfavourable to regular ſtools, but alſo the warmth. This, by promoting the perſpiration, leſſens all the other diſcharges.

The method recommended for this purpoſe by Mr. Locke is likewiſe very proper, viz. *to ſolicit nature, by going regularly to ſtool every morning whether one has a call or not.* Habits of this kind may be acquired, which will in time become natural.

Perſons who have frequent recourſe to medicines for preventing coſtiveneſs ſeldom fail to ruin their conſtitution. Purging medicines frequently repeated weaken the bowels, hurt the digeſtion, and every doſe makes way for another, till at length they become as neceſſary as daily bread. Thoſe who are troubled with coſtiveneſs ought rather, if poſſible, to remove it by diet than drugs. They ſhould likewiſe go more thinly clothed, and avoid every thing of an aſtringent or of an heating nature. The diet and other regimen neceſſary in this caſe will be found

under

under the article *Coſtiveneſs*, where this ſtate of the bowels is treated of as a diſeaſe.

Such perſons as are troubled with an habitual looſeneſs ought likewiſe to ſuit their diet to the nature of their complaint. They ſhould uſe food which braces and ſtrengthens the bowels, and which is rather of an aſtringent quality, as wheat-bread made of the fineſt flour, cheeſe, eggs, rice boiled in milk, &c. Their drink ſhould be red port, or claret, and water, in which toaſted bread has been boiled, and ſuch like.

As an habitual looſeneſs is often owing to an obſtructed perſpiration, perſons affected with it ought to keep their feet warm, to wear flannel next their ſkin, and take every other method to promote the perſpiration. Further directions with regard to the treatment of this complaint will be found under the article *Looſeneſs*.

Of Urine.

So many things tend to change both the quantity and appearances of the urine, that it is very difficult to lay down any determined rules for judging of either. * Dr. Cheyne ſays, the urine ought to be

* It has long been an obſervation among phyſicians, that the appearances of the urine are very uncertain, and very little to be depended on. No one will be ſurpriſed at this who conſiders how many ways it may be affected, and conſequently have its appearance altered. The paſſions, the ſtate of the atmoſphere, the quantity and quality of food, the exerciſe, the clothing, the ſtate of the other evacuations, and numberleſs other cauſes, are ſufficient to induce a change either in the quantity or appearance of the urine. Any one who attends to this, will be aſtoniſhed at the impudence of thoſe daring quacks, who pretend to find out diſeaſes, and preſcribe to patients from the bare inſpection of their urine. Theſe impoſtors, however, are very common all over Britain, and by the amazing credulity of

equal to three-fourths of the liquid part of our aliment. But ſuppoſe any one were to take the trouble of meaſuring both, he would find that every thing which altered the degree of perſpiration, would alter this proportion, and likewiſe that different kinds of aliment would afford very different quantities of urine. Though for theſe, and other reaſons, no rule can be given for judging of the preciſe quantity of urine which ought to be diſcharged, yet a perſon of common ſenſe will ſeldom be at a loſs to know when it is in either extreme.

As a free diſcharge of urine not only prevents but actually cures many diſeaſes, it ought by all means to be promoted; and every thing that may obſtruct it ſhould be carefully avoided. Both the ſecretion and diſcharge of urine are leſſened by a ſedentary life, ſleeping on beds that are too ſoft and warm, food of a dry and heating quality, liquors which are aſtringent and heating, as red port, claret, and ſuch like. Thoſe who have reaſon to ſuſpect that their urine is in too ſmall quantity, or who have any ſymptoms of the gravel, ought not only to avoid theſe things, but whatever elſe they find has a tendency to leſſen the quantity of their urine.

When the urine is too long retained, it is not only reſorbed, or taken up again into the maſs of fluids, but by ſtagnating in the bladder, it becomes thicker, the more watery parts flying off firſt, and the more groſs and earthy remaining behind. By the conſtant tendency which theſe have to concrete, the formation of ſtones and gravel in the bladder is

the populace, many of them amaſs conſiderable fortunes. Of all the medical prejudices which prevail in this country, that in favour of *urine doctors* is the ſtrongeſt. The common people have ſtill an unlimited faith in their ſkill, although it has been demonſtrated that no one of them is able to diſtinguiſh the urine of an horſe, or any other animal, from that of a man.

promoted.

promoted. Hence it comes to paſs, that indolent and ſedentary people are much more liable to theſe diſeaſes, than perſons of a more active life.

Many perſons have loſt their lives, and others have brought on very tedious, and even incurable diſorders, by retaining their urine too long, from a falſe delicacy. When the bladder has been over-diſtended, it often loſes its power of action altogether, or becomes paralytic, by which means it is rendered unable either to retain the urine, or expel it properly. The calls of nature ought never to be poſtponed. Delicacy is doubtleſs a virtue, but that can never be reckoned true delicacy, which induces any one to riſk his health or hazard his life.

But the urine may be in too great as well as too ſmall a quantity. This may be occaſioned by drinking large quantities of weak watery liquors, by the exceſſive uſe of alkaline ſalts, or any thing that ſtimulates the kidneys, dilutes the blood, &c. This diſorder very ſoon weakens the body, and induces a conſumption. It is difficult to cure, but may be mitigated by ſtrengthening diet and aſtringent medicines, ſuch as are recommended under the article *Diabetes*, or exceſſive diſcharge of urine.

Of the Perſpiration.

Inſenſible perſpiration is generally reckoned the greateſt of all the diſcharges from the human body. It is of ſo great importance to health that few diſeaſes attack us while it goes properly on; but when it is obſtructed, the whole frame is ſoon diſordered. This diſcharge, however, being leſs perceptible than any of the reſt, is conſequently leſs attended to. Hence it is, that acute fevers, rheumatiſms, agues, &c. often proceed from obſtructed perſpiration before we are aware of its having taken place.

On examining patients, we find moſt of them impute their diſeaſes either to violent colds which they had caught, or to ſlight ones which had been neglected. For this reaſon, inſtead of a critical inquiry into the nature of the perſpiration, its difference in different ſeaſons, climates, conſtitutions, &c. we ſhall endeavour to point out the cauſes which moſt commonly obſtruct it, and to ſhew how far they may be either avoided, or have their influence counteracted by timely care. The want of a due attention to theſe, coſts annually ſome thouſands of uſeful lives.

Changes in the Atmoſphere.

One of the moſt common cauſes of obſtructed perſpiration, or catching cold, in this country, is the changeableneſs of the weather, or ſtate of the atmoſphere. There is no place where ſuch changes happen more frequently than in Great Britain. With us the degrees of heat and cold are not only very different in the different ſeaſons of the year, but often change almoſt from one extreme to another in a few days, and ſometimes even in the courſe of one day. That ſuch changes muſt affect the ſtate of the perſpiration is obvious to every one*.

* I never knew a more remarkable inſtance of the uncertainty of the weather in this country, than happened while I was writing theſe notes. This morning, Auguſt 14, 1783, the thermometer in the ſhade was down at fifty-three degrees, and a very few days ago it ſtood above eighty. No one who reflects on ſuch great and ſudden changes in the atmoſphere, will be ſurpriſed to find colds, coughs, rheums, with other affections of the breaſt and bowels, ſo common in this country.———One would almoſt ſuppoſe that this, and many other remarks of the ſame kind, had been written in America.

The beſt method of fortifying the body againſt the changes of the weather, is to be abroad every day. Thoſe who keep moſt within doors are moſt liable to catch cold. Such perſons generally render themſelves ſo delicate as to feel even the ſlighteſt changes in the atmoſphere, and by their pains, coughs, oppreſſions of the breaſt, &c. they become a kind of living barometers.

Wet Clothes.

Wet clothes, not only by their coldneſs obſtruct the perſpiration, but their moiſture, by being abſorbed, or taken up into the body, greatly increaſes the danger. The moſt robuſt conſtitution is not proof againſt the danger ariſing from wet clothes; they daily occaſion fevers, rheumatiſms, and other fatal diſorders, even in the young and healthy.

It is impoſſible for people who go frequently abroad, to avoid ſometimes being wet. But the danger might generally be leſſened, if not wholly prevented, by changing their clothes ſoon; when this cannot be done, they ſhould keep in motion till they be dry. So far are many from taking this precaution, that they often ſit or lie down in the fields with their clothes wet, and frequently ſleep even whole nights in this condition. The frequent inſtances which we have of the fatal effects of this conduct, ought certainly to deter others from being guilty of it.

Wet Feet.

Even wet feet often occaſion fatal diſeaſes. The colic, inflammations of the breaſt and of the bowels, the iliac paſſion, *cholera morbus*, ſore throat, &c. are often occaſioned by wet feet. Habit will, no doubt, render

render this leſs dangerous; but it ought, as far as poſſible, to be avoided. The delicate, and thoſe who are not accuſtomed to have their clothes or feet wet, ſhould be peculiarly careful in this reſpect.

Night Air.

The perſpiration is often obſtructed by night air; even in ſummer, this ought to be avoided. The dews which fall plentifully after the hotteſt day, make the night more dangerous than when the weather is cool. Hence, in warm countries, the evening dews are more hurtful than where the climate is more temperate.

It is very agreeable after a warm day to be abroad in the cool evening; but this is a pleaſure to be avoided by all who value their health. The effects of evening dews are gradual indeed, and almoſt imperceptible; but they are not the leſs to be dreaded: we would therefore adviſe travellers, labourers, and all who are much heated by day, carefully to avoid them. When the perſpiration has been great, theſe become dangerous in proportion. By not attending to this, in flat marſhy countries, where the exhalations and dews are copious, labourers are often ſeized with intermitting fevers, quinſeys, and other dangerous diſeaſes.

Damp Beds.

Beds become damp, either from their not being uſed, ſtanding in damp houſes, or in rooms without fire. Nothing is more to be dreaded by travellers than damp beds, which are very common in all places where fuel is ſcarce. When a traveller, cold and wet, arrives at an inn, he may, by means of a good fire, warm diluting liquor, and a dry bed,

have the perſpiration reſtored; but if he be put into a cold room, and laid on a damp bed, it will be more obſtructed, and the worſt conſequences will enſue. Travellers ſhould avoid inns which are noted for damp beds, as they would a houſe infected with the plague, as no man, however robuſt, is proof againſt the danger ariſing from them.

But inns are not the only places where damp beds are to be met with. Beds kept in private families for the reception of ſtrangers are often equally dangerous. All kinds of linen and bedding, when not frequently uſed become damp. How then is it poſſible, that beds, which are not ſlept in above two or three times a-year, ſhould be ſafe? Nothing is more common than to hear people complain of having caught cold by changing their bed. The reaſon is obvious: were they careful never to ſleep in a bed but what was frequently uſed, they would ſeldom find any ill conſequences from a change.

Nothing is more to be dreaded by a delicate perſon when on a viſit, than being laid in a bed which is kept on purpoſe for ſtrangers. That ill-judged piece of complaiſance becomes a real injury. All the bad conſequences from this quarter might eaſily be prevented in private families, by cauſing their ſervants to ſleep in the ſpare beds, and reſign them to ſtrangers when they come. In inns where the beds are uſed almoſt every night, nothing elſe is neceſſary than to keep the rooms well ſeaſoned by frequent fires, and the linen dry.

That baneful cuſtom ſaid to be practiſed in many inns, of damping ſheets, and preſſing them in order to ſave waſhing, and afterwards laying them on the beds, ought, when diſcovered, to be puniſhed with the utmoſt ſeverity. It is really a ſpecies of murder, and will often prove as fatal as poiſon or gun-ſhot. Indeed, no linen, eſpecially if it has been waſhed

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in winter, ought to be uſed till it has been expoſed for ſome time to the fire; nor is this operation leſs neceſſary for linen waſhed in ſummer, provided it has lain by for any length of time. This caution is the more needful, as gentlemen are often exceedingly attentive to what they eat or drink at an inn, yet pay no regard to a circumſtance of much more importance*.

Damp Houſes.

Damp Houſes frequently produce the like ill conſequences; for this reaſon thoſe who build ſhould be careful to chuſe a dry ſituation. A houſe which ſtands on a damp marſhy ſoil or deep clay, will never be thoroughly dry. All houſes, unleſs where the ground is exceedingly dry, ſhould have the firſt floor a little raiſed. Servants and others, who are obliged to live in cellars and ſunk ſtories, ſeldom continue long in health: maſters ought ſurely to pay ſome regard to the health of their ſervants, as well as to their own.

Nothing is more common than for people, merely to avoid ſome trifling inconveniency, to hazard their lives, by inhabiting a houſe almoſt as ſoon as the maſons, plaſterers, &c. have done with it: ſuch houſes are not only dangerous from their dampneſs, but likewiſe from the ſmell of lime, paint, &c. The aſthmas, conſumptions, and other diſeaſes of the lungs, ſo incident to people who work in theſe arti-

* If a perſon ſuſpects that his bed is damp, the ſimple precaution of taking off the ſheets, and lying in the blankets, with all or moſt of his clothes on, will prevent all the danger. I have practiſed this for many years, and never have been hurt by damp beds, though no conſtitution, without care, is proof againſt their baneful influence.

cles, are ſufficient proofs of their being unwholeſome.

Rooms are often rendered damp by an unſeaſonable piece of cleanlineſs; I mean the pernicious cuſtom of waſhing them immediately before company is put into them. Moſt people catch cold, if they ſit but a very ſhort time in a room that has been lately waſhed; the delicate ought carefully to avoid ſuch a ſituation, and even the robuſt are not always proof againſt its influence*.

Sudden Tranſitions from Heat to Cold.

The perſpiration is commonly obſtructed by SUDDEN TRANSITIONS from heat to cold. Colds are ſeldom caught, unleſs when people have been too much heated. Heat rarifies the blood, quickens the circulation, and increaſes the perſpiration; but when theſe are ſuddenly checked, the conſequences muſt be bad. It is indeed impoſſible for labourers not to be too hot upon ſome occaſions; but it is generally in their power to let themſelves cool gradually, to put on their clothes when they leave off work, to make choice of a dry place to reſt themſelves in, and to avoid ſleeping in the open fields. Theſe eaſy rules, if obſerved, would often prevent fevers and other fatal diſorders.

It is very common for people, when hot, to drink freely of cold water, or ſmall liquors. This conduct is extremely dangerous. Thirſt indeed is hard to bear, and the inclination to gratify that appetite

* People imagine if a good fire is made in a room after it has been waſhed, that there is no danger from ſitting in it; but they muſt give me leave to ſay that this increaſes the danger. The evaporation excited by the fire generates cold, and renders the damp more active.

frequently

frequently gets the better of reaſon, and makes us do what our judgment diſapproves. Every peaſant, however, knows, if his horſe be permitted to drink his bellyful of cold water after violent exerciſe, and be immediately put into the ſtable, or ſuffered to remain at reſt, that it will kill him. This they take the utmoſt care to prevent. It were well if they were equally attentive to their own ſafety.

This may be quenched many ways without ſwallowing large quantities of cold liquor. The fields afford variety of acid fruits and plants, the very chewing of which would abate thirſt. Water kept in the mouth for ſome time, and ſpit out again, if frequently repeated, would have the ſame effect. If a bit of bread be eaten along with a few mouthfuls of water, it will both quench thirſt more effectually, and make the danger leſs. When a perſon is extremely hot, a mouthful of wine and water, if it can be obtained, ought to be preferred to any thing elſe. But if any one has been ſo fooliſh, when hot, as to drink freely of cold liquor, he ought to continue his exerciſe at leaſt till what he drank be thoroughly warmed upon his ſtomach.

It would be tedious to enumerate all the bad effects which flow from drinking cold liquors when the body is hot. Sometimes this has occaſioned immediate death. Hoarſeneſs, quinſeys, and fevers of various kinds, are its common conſequences. Neither is it ſafe when warm to eat freely of raw fruits, ſallads, or the like. Theſe indeed have not ſo ſudden an effect on the body as cold liquors, but they are notwithſtanding dangerous, and ought to be avoided.

Sitting in a warm room, and drinking hot liquors till the pores are quite open, and immediately going into the cold air, is extremely dangerous. Colds, coughs, and inflammations of the breaſt, are the

uſual effects of this conduct: yet nothing is more common than for perſons who have drank warm liquors for ſeveral hours, to walk or ride a number of miles in the coldeſt night, or to ramble about in the ſtreets *.

People are very apt, when a room is hot, to throw open a window, and to ſit near it. This is a moſt dangerous practice. Any perſon had better ſit without doors than in ſuch a ſituation, as the current of air is directed againſt one particular part of the body. Inflammatory fevers and conſumptions have often been occaſioned by ſitting or ſtanding thinly clothed near an open window. Nor is ſleeping with open windows leſs to be dreaded. That ought never to be done, even in the hotteſt ſeaſon, unleſs the window is at a diſtance. I have known mechanics frequently contract fatal diſeaſes, by working ſtript at an open window, and would adviſe all of them to beware of ſuch a practice.

Few things expoſe people more to catch cold than keeping their own houſes too warm; ſuch perſons may be ſaid to live in a ſort of hot-houſes; they can hardly ſtir abroad to viſit a neighbour, but at the hazard of their lives. Were there no other reaſon for keeping houſes moderately cool, that alone is ſufficient: but no houſe that is too hot can be wholeſome; heat deſtroys the ſpring and elaſticity of the air, and renders it leſs fit for expanding the lungs, and for the other purpoſes of reſpiration. Hence it is, that conſumptions and other diſeaſes of

* The beer houſes in great towns, where ſuch numbers of people ſpend their evenings are highly pernicious. The breath of a number of people crowded into a low apartment, with the addition of fires, candles, the ſmoke of tobacco, and the fumes of hot liquor, &c. muſt not only render it hurtful to continue in ſuch places, but dangerous to go out of them into a cold and chilly atmoſphere.

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the lungs prove ſo fatal to thoſe who work in forges, glaſs-houſes and the like.

Some are even ſo fool-hardy, as to plunge themſelves when hot into cold water. Not only fevers, but madneſs itſelf has frequently been the effect of this conduct. Indeed it looks too like the action of a madman to deſerve a ſerious conſideration.

The reſult of all theſe obſervations is, that every one ought to avoid, with the utmoſt attention, all ſudden tranſitions from heat to cold, and to keep the body in as uniform a temperature as poſſible; or where that cannot be done, to take care to let it cool gradually.

People may imagine that too ſtrict an attention to theſe things would tend to render them delicate. So far, however, is this from being my deſign, that the very firſt rule propoſed for preventing colds, is to harden the body, by inuring it daily to the open air.

I ſhall put at end to what relates to this part of my ſubject, by giving an abſtract of the juſtly celebrated advice of Celſus, with reſpect to the preſervation of health. "A man," ſays he, "who is "bleſſed with good health, ſhould confine himſelf "to no particular rules, either with reſpect to regi- "men or medicine. He ought frequently to diver- "ſify his manner of living; to be ſometimes in "town, ſometimes in the country; to hunt, ſail, "indulge himſelf in reſt, but more frequently to "uſe exerciſe. He ought to refuſe no kind of food "that is commonly uſed; ſometimes to make one at "an entertainment, and ſometimes to forbear it; to "make rather two meals a-day than one, and always "to eat heartily, provided he can digeſt it. He "ſhould be careful in time of health not to deſtroy, "by exceſſes of any kind, that vigour of conſtitution "which ſhould ſupport him under ſickneſs."

PART

PART II.

OF DISEASES.

CHAPTER XII.

Of the Knowledge and Cure of Diſeaſes.

THE knowledge of diſeaſes does not depend ſo much upon ſcientific principles as many imagine. It is chiefly the reſult of experience and obſervation. By attending the ſick, and carefully obſerving the various occurrences in diſeaſes, a great degree of accuracy may be acquired, both in diſtinguiſhing their ſymptoms, and in the application of medicines. Hence *ſenſible* nurſes, and other perſons who wait upon the ſick, often diſcover a diſeaſe ſooner than thoſe who have been bred to phyſic. We do not, however, mean to inſinuate, that a medical education is of no uſe: it is doubtleſs of the greateſt importance; but it never can ſupply the place of obſervation and experience.

Every diſeaſe may be conſidered as an aſſemblage of ſymptoms, and muſt be diſtinguiſhed by thoſe which are moſt obvious and permanent. Inſtead, therefore, of giving a claſſical arrangement of diſeaſes,

diſeaſes, according to the ſyſtematic method, it will be more ſuitable, in a performance of this nature, to give a full and accurate deſcription of each particular diſeaſe as it occurs; and, where any of the ſymptoms of one diſeaſe have a near reſemblance, to thoſe of another, to take notice of that circumſtance, and, at the ſame time, to point out the peculiar or characteriſtic ſymptoms by which it may be diſtinguiſhed. By a due attention to theſe, the inveſtigation of diſeaſes will be found to be a leſs difficult matter than moſt people would at firſt be ready to imagine.

A proper attention to the patient's age, ſex, temper of mind, conſtitution, and manner of life, will likewiſe greatly aſſiſt, both in the inveſtigation and treatment of diſeaſes.

In childhood the fibres are lax and ſoft, the nerves extremely irritable, and the fluids thin; whereas in old age the fibres are rigid, the nerves become almoſt inſenſible, and many of the veſſels imperviable. Theſe and other peculiarities, render the diſeaſes of the young and aged very different, and of courſe they muſt require a different method of treatment.

Females are liable to many diſeaſes which do not afflict the other ſex; beſides the nervous ſyſtem being more irritable in them than in men, their diſeaſes require to be treated with greater caution. They are often leſs able to bear large evacuations; and all ſtimulating medicines ought to be adminiſtered to them with a ſparing hand.

Particular conſtitutions not only diſpoſe perſons to peculiar diſeaſes, but likewiſe render it neceſſary to treat theſe diſeaſes in a peculiar manner. A delicate perſon, for example, with weak nerves, who lives moſtly within doors, muſt not be treated, under any diſeaſe, preciſely in the ſame manner as one who is hardy and robuſt, and who is much expoſed to the open air.

The

The temper of mind ought to be carefully attended to in diſeaſes. Fear, anxiety, and a fretful temper, both occaſion and aggravate diſeaſes. In vain do we apply medicines to the body to remove maladies which proceed from the mind. When this is affected, the beſt medicine is to ſooth the paſſions, to divert the mind from anxious thought, and to keep the patient as eaſy and cheerful as poſſible.

Attention ought likewiſe to be paid to the climate, or place where the patient lives, the air he breathes, his diet, &c. Such as live in low marſhy ſituations are ſubject to many diſeaſes which are unknown to the inhabitants of high countries. Thoſe who breathe the impure air of cities, have many maladies to which the more happy ruſtics are entire ſtrangers. Perſons who feed groſsly, and indulge in ſtrong liquors, are liable to diſeaſes which do not affect the temperate and abſtemious.

It has already been obſerved, that the different occupations and ſituations in life diſpoſe men to peculiar diſeaſes. It is therefore neceſſary to inquire into the patient's occupation, manner of life, &c. This will not only aſſiſt us in finding out the diſeaſe, but will likewiſe direct us in the treatment of it. It would be very imprudent to treat the laborious and the ſedentary preciſely in the ſame manner, even ſuppoſing them to labour under the ſame diſeaſe.

It will likewiſe be proper to inquire, whether the diſeaſe be conſtitutional or accidental; whether it has been of long or ſhort duration; whether it proceeds from any great and ſudden alteration in the diet, manner of life, &c. The ſtate of the patient's body, and of the evacuations, ought alſo to be inquired into; and likewiſe whether he can with eaſe perform all the vital and animal functions, as breathing, digeſtion, &c.

Laſtly

Laſtly, it will be proper to inquire what diſeaſes the patient has formerly been liable to, and what medicines were moſt beneficial to him; if he has a ſtrong averſion to any particular drug, &c.*.

As many of the indications of cure may be anſwered by diet alone, it is always the firſt thing to be attended to in the treatment of diſeaſes. Thoſe who know no better, imagine that every thing which goes by the name of a medicine poſſeſſes ſome wonderful power or ſecret charm, and think, if the patient ſwallows enough of drugs, that he muſt do well. This miſtake has many ill conſequences; it makes people truſt to drugs, and neglect their own endeavours; beſides, it diſcourages all attempts to relieve the ſick where medicines cannot be obtained.

Medicines are no doubt uſeful in their place; and, when adminiſtered with prudence, they may do much good; but, when they are put in place of every thing elſe, or adminiſtered at random, which is not ſeldom the caſe, they muſt do miſchief. We would therefore wiſh to call the attention of mankind from the purſuit of ſecret medicines, to ſuch things as they are acquainted with. The proper regulation of theſe may often do much good, and there is little danger of their ever doing hurt.

Every diſeaſe weakens the digeſtive powers. The diet ought therefore, in all diſeaſes, to be light and of eaſy digeſtion. It would be as prudent for a perſon with a broken leg to attempt to walk, as for one in a fever to eat the ſame kind of food, and in the ſame quantity, as when he was in perfect health. Even abſtinence alone will often cure a fever, eſpecially when it has been occaſioned by exceſs in eating or drinking.

* It is, however, no uncommon caſe for a patient to *ſuppoſe* that ſome particular medicines diſagree with him.

In

In all fevers attended with inflammation, as pleuriſies, peripneumonies, &c. thin gruels, wheys, watery infuſions of mucilaginous plants, roots, &c. are not only proper for the patient's food, but they are likewiſe ſome of the beſt medicines which can be adminiſtered.

In fevers of a ſlow, nervous, or putrid kind, where there are no ſymptoms of inflammation, and where the patient muſt be ſupported with cordials, that intention can always be more effectually anſwered by nouriſhing diet, and generous wines, than by any medicines yet known.

Nor is a proper attention to diet of leſs importance in chronic than in acute diſeaſes. Perſons afflicted with low ſpirits, wind, weak nerves, and other hypochondriacal affections, generally find more benefit from the uſe of ſolid food and generous liquors, than from all the cordial and carminative medicines which can be adminiſtered to them.

The ſcurvy, that moſt obſtinate malady, will ſooner yield to a proper vegetable diet, than to all the boaſted antiſcorbutic remedies of the ſhops.

In conſumptions, when the humors are vitiated, and the ſtomach ſo much weakened as to be unable to digeſt the ſolid fibres of animals, or even to aſſimilate the juices of vegetables, a diet conſiſting chiefly of milk will not only ſupport the patient, but will often cure the diſeaſe after every other medicine has failed.

Nor is an attention to other things of leſs importance than to diet. The ſtrange infatuation which has long induced people to ſhut up the ſick from all communication with the external air, has done great miſchief. Not only in fevers, but in many other diſeaſes, the patient will receive more benefit from having the freſh air prudently admitted into his cham-

ber, than from all the medicines which can be given him.

Exercise may likewise in many cases be considered as a medicine. Sailing, or riding on horseback, for example, will be of more service in the cure of consumptions, glandular obstructions, diseases of the stomach and bowels, &c. than any medicine yet known. In diseases which proceed from a relaxed state of the solids, the cold bath, and other parts of the gymnastic regimen, will be found equally beneficial.

Few things are of greater importance in the cure of diseases than cleanliness. When a patient is suffered to lie in dirty clothes, whatever perspires from his body is again resorbed, or taken up into it, which serves to nourish the disease, and increase the danger. Many diseases may be cured by cleanliness alone; most of them may be mitigated by it, and in all of them it is highly necessary both for the patient and those who attend him.

Many other observations, were it necessary, might be adduced to prove the importance of a proper regimen in diseases. Regimen will often cure diseases without medicine, but medicine will seldom succeed where a proper regimen is neglected. For this reason, in the treatment of diseases, we have always given the first place to regimen. Those who are ignorant of medicine may confine themselves to it only. For others who have more knowledge, we have recommended some of the most simple, but approved forms of medicine in every disease. *These, however, are never to be administered but by people of better understanding; nor even by them without the greatest precaution.*

CHAP. XIII.

Of Fevers in general.

As more than one half of mankind is ſaid to periſh by fevers, it is of importance to be acquainted with their cauſes. The moſt general cauſes of fevers are, *infection*, *errors in diet*, *unwholeſome air*, *violent emotions of the mind*, *exceſs or ſuppreſſion of uſual evacuations*, *external and internal injuries*, *and extreme degrees of heat or cold.* As moſt of theſe have already been treated of at conſiderable length, and their effects ſhewn, we ſhall not now reſume the conſideration of them, but ſhall only recommend it to all, as they would wiſh to avoid fevers, and other fatal diſeaſes, to pay the moſt punctual attention to theſe articles.

Fevers are not only the moſt frequent of all diſeaſes, but they are likewiſe the moſt complex. In the moſt ſimple ſpecies of fever, there is always a combination of ſeveral different ſymptoms. The diſtinguiſhing ſymptoms of fever are, *increaſed heat*, *frequency of pulſe*, *loſs of appetite*, *general debility*, *pain in the head*, and *a difficulty in performing ſome of the vital or animal functions.* The other ſymptoms uſually attendant on fevers are, naufea, thirſt, anxiety, delirium, wearineſs, waſting of the fleſh, want of ſleep, or the ſleep diſturbed and not refreſhing.

When the fever comes on gradually, the patient generally complains firſt of languor or liſtleſſneſs, ſoreneſs of the fleſh, or the bones, as the country people expreſs it, heavineſs of the head, loſs of

appetite, ſickneſs, with clammineſs of the mouth; after ſome time, come on exceſſive heat, violent thirſt, reſtleſſneſs, &c.

When the fever attacks ſuddenly, it always begins with an uneaſy ſenſation of exceſſive cold, accompanied with debility and loſs of appetite; frequently the cold is attended with ſhivering, oppreſſion about the heart, and ſickneſs at ſtomach, or vomiting.

Fevers are divided into continual, remitting, intermitting, and ſuch as are attended with cutaneous eruption or topical inflammation, as the ſmall-pox, eryſipelas, &c. By a continual fever is meant, that which never leaves the patient during the whole courſe of the diſeaſe, or which ſhews no remarkable increaſe or abatement in the ſymptoms. This kind of fever is likewiſe divided into acute, ſlow, and malignant. The fever is called *acute*, when its progreſs is quick, and the ſymptoms violent; but when theſe are more gentle, it is generally denominated *ſlow*. When livid or petechial ſpots appear, the fever is called *malignant*, *putrid*, or *petechial*.

A remitting fever differs from a continual only in a degree. It has frequent increaſes and decreaſes, or exacerbations and remiſſions, but never wholly leaves the patient during the courſe of the diſeaſe. Intermitting fevers or agues are thoſe which, during the time that the patient may be ſaid to be ill, have evident intervals or remiſſions of the ſymptoms.

In a fever it is the buſineſs of thoſe who have the care of the ſick, to obſerve with diligence which way Nature points, and to endeavour to aſſiſt her operations. Our bodies are ſo framed, as to have a conſtant tendency to expel or throw off whatever is injurious to health. This is generally done by urine, ſweat, ſtool, expectoration, vomit, or ſome other evacuation.

There

There is reaſon to believe, if the efforts of Nature, at the beginning of a fever, were duly attended to and promoted, it would ſeldom continue long; but when her attempts are either neglected or counteracted, it is no wonder if the diſeaſe proves fatal. There are daily inſtances of perſons who, after catching cold, have all the ſymptoms of a beginning fever; but by keeping warm, drinking diluting liquors, bathing their feet in warm water, &c. the ſymptoms in a few hours diſappear, and the danger is prevented. When fevers of the goal or hoſpital kind threaten, the beſt method of obviating their effects is by one or two vomits.

Our deſign is not to enter into a critical inquiry into the nature and immediate cauſes of fevers, but to mark their moſt obvious ſymptoms, and to point out the proper treatment of the patient with reſpect to his diet, drink, air, &c. in the different ſtages of the diſeaſe. In theſe articles the inclinations of the patient will, in a great meaſure, direct our conduct.

Almoſt every perſon in a fever complains of great thirſt, and calls out for drink, eſpecially of a cooling nature. This at once points out the uſe of *water*, and other cooling liquors. What is ſo likely to abate the heat, attenuate the humors, remove ſpaſms and obſtructions, promote perſpiration, increaſe the quantity of urine, and, in ſhort, produce every ſalutary effect in an ardent or inflammatory fever, as drinking plentifully of water, thin gruel, or any other weak liquor, of which water is the baſis? The neceſſity of diluting liquors, is pointed out by the dry tongue, the parched ſkin, and the burning heat, as well as the unquenchable thirſt of the patient.

Many cooling liquors which are extremely grateful to patients in a fever, may be prepared from fruits, as decoctions of tamarinds, apple-tea, orange-

whey, and the like. Mucilaginous liquors might alſo be prepared from marſhmallow roots, flax-ſeed, lime-tree buds, barley, and other mild vegetables. Theſe liquors, eſpecially when acidulated, are highly agreeable to the patient, and ſhould never be denied him.

At the beginning of a fever, the patient generally complains of great laſſitude or wearineſs, and has no inclination to move. This evidently ſhews the propriety of keeping him eaſy, and if poſſible in bed. Lying in bed relaxes the ſpaſms, abates the violence of the circulation, and gives Nature an opportunity of exerting all her force to overcome the diſeaſe. The bed alone would often remove a fever at the beginning; but when the patient ſtruggles with the diſeaſe, inſtead of driving it off, he only fixes it the deeper, and renders it more dangerous. This obſervation is too often verified in travellers, who happen, when on a journey, to be ſeized with a fever. Their anxiety to get home, induces them to travel with the fever upon them, which conduct often renders it fatal.

In fevers, the mind, as well as the body, ſhould be kept eaſy. Company is ſeldom agreeable to the ſick. Indeed, every thing that diſturbs the imagination, increaſes the diſeaſe; for which reaſon, every perſon in a fever ought to be kept perfectly quiet, and neither allowed to ſee nor hear any thing that may in the leaſt affect or diſcompoſe his mind.

Though the patient, in a fever, has the greateſt inclination for drink, yet he ſeldom has any appetite for ſolid food; hence the impropriety of urging him to take victuals is evident. Much ſolid food, in a fever, is every way hurtful. It oppreſſes nature, and, inſtead of nouriſhing the patient, ſerves only to feed the diſeaſe. What food the patient takes, ſhould be in ſmall quantity, light, and of eaſy digeſtion.

geſtion. It ought to be chiefly of the vegetable kind, as panada, roaſted apples, gruels, and ſuch like.

Poor people, when any of their family are taken ill, run directly to their rich neighbours for cordials, and pour wine, ſpirits, &c. into the patient, who, perhaps, never had been accuſtomed to taſte ſuch liquors when in health. If there be any degree of fever, this conduct muſt increaſe it, and if there be none, this is the ready way to raiſe one. Stuffing the patient with ſweatmeats, and other delicacies, is likewiſe very pernicious. Theſe are always harder to digeſt than common food, and cannot fail to hurt the ſtomach.

Nothing is more deſired by a patient in a fever than freſh air. It not only removes his anxiety, but cools the blood, revives the ſpirits, and proves every way beneficial. Many patients are in a manner ſtifled to death in fevers, for want of freſh air; yet, ſuch is the unaccountable infatuation of moſt people, that the moment they think a perſon in a fever, they imagine he ſhould be kept in a cloſe chamber, into which not one particle of freſh air muſt be admitted. Inſtead of this, there ought to be a conſtant ſtream of freſh air into a ſick perſon's chamber, ſo as to keep it moderately cool. Indeed, its degree of warmth ought never to be greater than is agreeable to one in perfect health.

Nothing ſpoils the air of a ſick perſon's chamber, or hurts the patient more, than a number of people breathing in it. When the blood is inflamed, air that has been breathed repeatedly, will greatly increaſe the diſeaſe. Such air, not only loſes its ſpring, and becomes unfit for the purpoſe of reſpiration, but acquires a noxious quality, which renders it, in a manner poiſonous to the ſick. The body linen, as

well as the ſheets, ſhould be often changed: there is no caſe where this is dangerous, if the linen is dry and warm, unleſs when the patient is too weak to bear it.

In the laſt ſtage of fevers, when the patient's ſpirits are low and depreſſed, and the ſkin is ſoft and pulſe weak, he is not only to be ſupported with cordials, but every method ſhould be taken to cheer and comfort his mind. Many, from a miſtaken zeal, when they think a perſon in danger, inſtead of ſolacing his mind with the hopes and conſolations of religion, fright him with the views of hell and damnation. It would be unſuitable here, to dwell upon the impropriety and dangerous conſequences of this conduct; it often hurts the body, and there is reaſon to believe ſeldom benefits the ſoul.

Among common people, the very name of a fever generally ſuggeſts the neceſſity of bleeding. This notion ſeems to have taken its riſe from moſt fevers in this country having been formerly of an inflammatory nature; but true inflammatory fevers are now ſeldom to be met with. Sedentary occupations, and a different manner of living, have ſo changed the ſtate of diſeaſes in Britain, that there is now hardly one fever in ten, where the lancet is neceſſery. In moſt low, nervous, and putrid fevers, which are now ſo common, bleeding is really hurtful, as it weakens the patient, ſinks his ſpirits, &c. We would recommend this general rule, never to bleed at the beginning of a fever, unleſs there be evident ſigns of inflammation; and where the pulſe ſhews that inflammation is preſent, bleeding is always ſafe and proper. Bleeding is an excellent medicine when neceſſary, but ſhould never be wantonly performed. *

* See hereafter, the chapter on the Yellow Fever.

It

It is likewiſe a common notion, that ſweating is always neceſſary in the beginning of a fever. When the fever proceeds from an obſtructed perſpiration, this notion is not ill founded. If the patient only lies in bed, bathes his feet and legs in warm water, and drinks freely of water-gruel or any other weak diluting liquor, he will ſeldom fail to perſpire freely. The warmth of the bed, and the diluting drink, will relax the univerſal ſpaſm, which generally affects the ſkin at the beginning of a fever; it will open the pores, and promote the perſpiration, by means of which the fever may often be carried off. But, inſtead of this, the common practice is, to heap clothes upon the patient, and to give him things of a hot nature, as ſpirits, ſpiceries, &c. which fire his blood, increaſe the ſpaſms, and render the diſeaſe more dangerous.

In all fevers, a *proper* attention ſhould be paid to the patient's longings. Theſe are ſometimes the calls of Nature, and point out what may be of real uſe. Patients are not, indeed, to be indulged in every thing that the ſickly appetite may crave; but, it is generally right to let them have a little of what they eagerly deſire, though it may not ſeem altogether proper. What the patient longs for, his ſtomach will generally digeſt; and, ſuch things have ſometimes a very happy effect. We ſhould, however, be careful to diſtinguiſh between a rational longing for any thing, and the incoherent wiſhes of perſons in a delirium.

When a patient is recovering from a fever, great care is neceſſary to prevent a relapſe. Many perſons, by too ſoon imagining themſelves well, have loſt their lives, or contracted other diſeaſes of an obſtinate nature. As the body, after a fever, is weak and delicate, it is neceſſary to guard againſt catching cold. Moderate exerciſe in the open air

will be of uſe, but great fatigue is, by all means, to be avoided; agreeable company will alſo have a good effect. The diet muſt be light, but nouriſhing. It ſhould be taken frequently, but in ſmall quantities. It is dangerous, at ſuch a time, to eat as much as the ſtomach may crave.

CHAP. XIV.

Of Intermitting Fevers, or Agues.

INTERMITTING fevers afford the beſt opportunity, both of obſerving the nature of a fever, and alſo the effects of a medicine. No perſon can be at a loſs to diſtinguiſh an intermitting fever from any other, and the proper medicine for it, is now almoſt univerſally known.

The ſeveral kinds of intermitting fevers take their names from the period in which the fit returns, as quotidian, tertian, quartan, &c.

CAUSES.—Agues are occaſioned by effluvia from putrid ſtagnating water. This is evident from their abounding in rainy ſeaſons, and being moſt frequent in countries where the ſoil is marſhy, as in Holland, the fens of Cambridgeſhire, the Hundreds of Eſſex, &c. This diſeaſe may alſo be occaſioned by eating too much fruit, by a poor watery diet, by drinking cold liquors, damp houſes, expoſure to the ſun, evening dews, lying upon the damp ground, watching, fatigue, depreſſing paſſions, and the like. When the inhabitants of a high country remove to a low one, they are generally ſeized with intermitting fevers,

fevers, and to ſuch the diſeaſe is moſt apt to prove fatal. In a word, whatever relaxes the ſolids, diminiſhes the perſpiration, or obſtructs the circulation in the capillary or ſmall veſſels, diſpoſes the body to agues.

SYMPTOMS.—An intermitting fever generally begins with a pain of the head and loins, wearineſs of the limbs, coldneſs of the extremities, ſtretching, yawning, with ſometimes great ſickneſs and vomiting, to which ſucceed ſhivering or violent ſhaking; this is followed by conſiderable heat, and a quick, full, hard pulſe, which laſts from half an hour to one, two, or three hours. Afterwards the ſkin becomes moiſt, and a profuſe ſweat breaks out, which generally terminates the fit or paroxyſm. Sometimes indeed the diſeaſe comes on ſuddenly, when the perſon thinks himſelf in perfect health; but it is more commonly preceded by liſtleſſneſs, loſs of appetite, and the ſymptoms mentioned above.

REGIMEN.—While the fit continues the patient ought to drink freely of water-gruel, lemonade, weak camomile tea; or, if his ſtrength be much reduced, ſmall wine-whey, ſharpened with the juice of lemon. All his drink ſhould be warm, as that will aſſiſt in bringing on the ſweat, and conſequently ſhorten the paroxyſm. *

* Dr. Lind ſays, that twenty or twenty-five drops of laudanum, put into a cup of the patient's drink, and given about half an hour after the commencement of the hot fit, promotes the ſweat, ſhortens the fit, relieves the head, and tends greatly to remove the diſeaſe.

There is no doubt that this remedy will often effectually remove it—and from one to two grains of opium given an hour before the cold fit is expected, will alſo ſtop the fit, and often cure the diſeaſe.

Between

Between the paroxyſms the patient muſt be ſupported with food that is nouriſhing, but light and eaſy of digeſtion, as veal or chicken-broths, ſago, gruel with a little wine, light puddings, and ſuch like. He may drink infuſions of bitter herbs, as camomile, worm-wood, or centaury, and may now and then take a glaſs of ſmall wine, in which gentian root, centaury, or ſome other bitter, has been infuſed.

As the chief intentions of cure in an ague are to brace the ſolids, and promote perſpiration, the patient ought to take as much exerciſe between the fits as he can bear. If he be able to go abroad, riding on horſeback, or in a carriage, will be of great ſervice. But if he cannot bear that kind of exerciſe, he ought to take ſuch as his ſtrength will permit. Nothing tends more to prolong an intermitting fever, than indulging a lazy indolent diſpoſition.

MEDICINE.—The firſt thing to be done in the cure of an intermitting fever, is to cleanſe the ſtomach and bowels. This not only renders the application of other medicines more ſafe, but likewiſe more efficacious. In this diſeaſe, the ſtomach is generally loaded with cold viſcid phlegm, and frequently great quantities of bile are diſcharged by vomit; which plainly points out the neceſſity of ſuch evacuations. Vomits are therefore to be adminiſtered before the patient takes any other medicine. A doſe of ipecacuanha will generally anſwer this purpoſe very well. Fifteen grains or a ſcruple of the powder will be ſufficient for an adult, and for a younger perſon the doſe muſt be leſs in proportion. After the vomit begins to operate, the patient ought to drink plentifully of weak camomile-tea. The vomit ſhould be taken two or three hours before the return of the fit. Vomits not only cleanſe the ſtomach, but increaſe the perſpiration, and all the other ſecretions, which

which render them of ſuch importance, that they often cure intermittent fevers without the aſſiſtance of any other medicine.

Purging medicines are likewiſe uſeful and often neceſſary in intermitting fevers. A ſmart purge has been known to cure an obſtinate ague, after the Peruvian bark and other medicines had been uſed in vain. Vomits however are more ſuitable in this diſeaſe, and render purging leſs neceſſary; but if the patient be afraid to take a vomit, he ought in this caſe to cleanſe the bowels by a doſe or two of jalap, or rhubarb.

Bleeding is proper at the beginning of an intermitting fever, when exceſſive heat, a delirium, &c. give reaſon to ſuſpect an inflammation; but this operation is not very often neceſſary.

After proper evacuations the patient may ſafely uſe the Peruvian bark, which may be taken in any way that is moſt agreeable to him. No preparation of the bark ſeems to anſwer better than the moſt ſimple form in which it can be given, viz. in powder.

Two ounces of the beſt Peruvian bark, finely powdered, may be divided into twenty-four doſes. Theſe may either be made into boluſſes as they are uſed, with a little ſyrup of lemon, or mixed in a glaſs of red wine, a cup of camomile-tea, water-gruel, water, milk and water, good lively porter, or any other drink that is more agreeable to the patient. * The Peruvian bark frequently occaſions a ſickneſs at ſtomach; this may often be prevented by eating nothing but clear broth. If it purges, add three or four drops of laudanum to each doſe—If it

* It has lately been obſerved, that the red bark is more powerful than that which has for ſome time been in common uſe, but it does not agree ſo well with the ſtomach: On the contrary, the yellow bark agrees better with the ſtomach, and is equally efficacious.

renders

renders the body coſtive, add five or ſix grains of rhubarb to every doſe till it purges.

In an ague which returns every day, one of the above doſes may be taken every hour during the interval of the fits. By this method the patient will be able to take ten or twelve doſes between each paroxyſm. In a tertian or third day ague it will be ſufficient to take a doſe every third hour during the interval, and in a quartan every fourth. If the patient cannot take ſo large a doſe of the bark, he may divide each of the powders into two parts, and take one every hour, &c. For a young perſon a ſmaller quantity of this medicine will be ſufficient, and the doſe muſt be adapted to the age, conſtitution, and violence of the ſymptoms. *

The above quantity of bark will frequently cure an ague; the patient, however, ought not to leave off taking the medicine as ſoon as the paroxyſms are ſtopped, but ſhould continue to uſe it till there is reaſon to believe the diſeaſe is entirely overcome. Moſt of the failures in the cure of this diſeaſe are owing to patients not continuing to uſe the medicine long enough. They are generally directed to take it till the fits are ſtopped, then to leave it off, and begin again at ſome diſtance of time; by which means the diſeaſe gathers ſtrength, and often returns with as much violence as before. A relapſe may

* In intermitting fevers of an obſtinate nature, I have found it neceſſary to throw in the bark much faſter. Indeed the benefits ariſing from this medicine depend chiefly upon a large quantity of it being adminiſtered in a ſhort time. Several ounces of bark given in a few days will do more than as many pounds taken in the courſe of ſome weeks. When this medicine is intended either to ſtop a mortification, or cure an obſtinate ague, it ought to be thrown in as faſt as the ſtomach can poſſibly bear it. Inattention to this circumſtance has hurt the reputation of one of the beſt medicines of which we are in poſſeſſion.

always

always be prevented by the patient's continuing to take ſmall doſes of the medicine for ſome time after the ſymptoms diſappear. This is both the moſt ſafe and effectual method of cure.

An ounce of gentian root, of calamus aromaticus, and orange-peel, each half an ounce, with three or four handfuls of camomile-flowers, and an handful of coriander-ſeed, all bruiſed together in a mortar, may be uſed in form of infuſion or tea. About half an handful of theſe ingredients may be put into a tea-pot, and a pint of boiling water poured on them. A cup of this infuſion drank three or four times a-day will greatly promote the cure. Such patients as cannot drink the watery infuſion, may put two handfuls of the ſame ingredients into a bottle of white wine, and take a glaſs of it twice or thrice a-day. If patients drink freely of the above, or any other proper infuſion of bitters, a ſmaller quantity of bark than is generally uſed, will be ſufficient to cure an ague. *

Thoſe who cannot ſwallow the bark in ſubſtance, may take it in decoction or infuſion. An ounce of bark in powder may be infuſed in a bottle of white wine for four or five days, frequently ſhaking the bottle, afterwards let the powder ſubſide, and pour off the clear liquor. A wine glaſs may be drank three or four times a-day, or oftener, as there is oc-

* There is reaſon to believe, that ſundry of our own plants or barks, which are very bitter and aſtringent, would ſucceed in the cure of intermittent fevers, eſpecially when aſſiſted by aromatics. But as the Peruvian bark has been long approved in the cure of this diſeaſe, and is now to be obtained at a very reaſonable rate, it is of leſs importance to ſearch after new medicines. We cannot, however, omit taking notice, that the Peruvian bark is very often adulterated, and that it requires conſiderable ſkill to diſtinguiſh between the genuine and the falſe. This ought to make people very cautious of whom they purchaſe it.

caſion.

caſion. If a decoction be more agreeable, an ounce of the bark, and two drams of ſnake-root bruiſed, with an equal quantity of ſalt of worm-wood, may be boiled in a quart of water, into an Engliſh pint. To the ſtrained liquor may be added an equal quantity of red wine, and a glaſs of it taken frequently.

In an obſtinate tertian or quartan, in the end of autumn, or beginning of winter, warm and cordial medicines are abſolutely neceſſary. *

Obſtinate autumnal agues are cured by bliſters to the wriſts; winter agues by bleeding, if the pulſe will bear it: after theſe the bark to be given, as in common caſes of ague.

As autumnal and winter agues generally prove much more obſtinate than thoſe which attack the patient in ſpring or ſummer, it will be neceſſary to continue the uſe of medicines longer in the former than in the latter. A perſon who is ſeized with an intermitting fever in the beginning of winter, ought frequently, if the ſeaſon proves rainy, to take a little medicine, although the diſeaſe may ſeem to be cured, to prevent a relapſe, till the return of the warm ſeaſon. He ought likewiſe to take care not to be much abroad in wet weather, eſpecially in cold eaſterly winds.

When agues are not properly cured, they often degenerate into obſtinate chronical diſeaſes, as the dropſy, jaundice, conſumption, &c. For this reaſon, all poſſible care ſhould be taken to have them radi-

* In obſtinate agues, when the patient is old, the habit phlegmatic, the ſeaſon rainy, the ſituation damp, or the like, it will be neceſſary to mix with two ounces of the bark, half an ounce of Virginia ſnake-root, and a quarter of an ounce of ginger, or ſome other warm aromatic; but when the ſymptoms are of an inflammatory nature, half an ounce of ſalt of wormwood or ſalt of tartar may be added to the above quantity of bark.

cally cured, before the conſtitution has been too much weakened.

Though nothing is more rational than the method of treating intermitting fevers, yet, by ſome ſtrange infatuation, more charms and whimſical remedies are daily uſed for removing this, than any other diſeaſe. There is hardly an old woman who is not in poſſeſſion of a noſtrum for ſtopping an ague; and it is amazing with what readineſs their pretenſions are believed. Thoſe in diſtreſs eagerly graſp at any thing that promiſes ſudden relief; but the ſhorteſt way is not always the beſt in the treatment of diſeaſes. The only method to obtain a ſafe and laſting cure, is gradually to aſſiſt Nature in removing the cauſe of the diſorder.

Some indeed try bold, or rather fool-hardy experiments to cure agues, as drinking great quantities of ſtrong liquors, jumping into a river, &c. Theſe may ſometimes have the deſired effect, but muſt always be attended with danger. * When there is any degree of inflammation, or the leaſt tendency to it, ſuch experiments may prove fatal. The only patient whom I remember to have loſt in an intermittent fever, evidently killed himſelf by drinking ſtrong liquor, which ſome perſon had perſuaded him would prove an infallible remedy. Half an ounce of the flowers of ſulphur taken in milk an hour before the cold fit, will often cure an ague: So will a ſtrong infuſion of gentian, a flannel ſhirt, a change of air; theſe are ſafe and rational remedies.

Many dirty things are extolled for the cure of intermitting fevers, as ſpiders, cobwebs, ſnuffings of candles, &c. Though theſe may ſometimes ſucceed,

* Arſenic has of late been recommended as an infallible remedy in the ague; but I would adviſe that it ſhould be uſed only under the eye of a phyſician.

yet

yet their very naſtineſs is ſufficient to ſet them aſide, eſpecially, when cleanly medicines will anſwer the purpoſe better. The only medicine that can be depended upon, for thoroughly curing an intermittent fever, is the Peruvian bark. It may always be uſed with ſafety: and I can honeſtly declare, that in all my practice I never knew it fail, when combined with the medicines mentioned above, and duly perſiſted in.

Where agues are endemical, even children are often afflicted with that diſeaſe. Such patients are very difficult to cure, as they can ſeldom be prevailed upon to take the bark, or any other diſagreeable medicine. One method of rendering this medicine more palatable, is to make it into a mixture with diſtilled waters and ſyrup, and afterwards to give it an agreeable ſharpneſs with the elixir or ſpirit of vitriol. This both improves the medicine, and takes off the nauſeous taſte. In caſes where the bark cannot be adminiſtered, the *ſaline mixture* may be given with advantage to children. *

Wine-whey is a very proper drink for a child in the cold fit of an ague; to half a pint of which may be put a teaſpoonful of the ſpirit of hartſhorn. Exerciſe is likewiſe of conſiderable ſervice; and when the diſeaſe proves obſtinate, the child ought, if poſſible, to be removed to a warm dry air. The food ought to be nouriſhing, and ſometimes a little generous wine ſhould be allowed.

To children, and ſuch as cannot ſwallow the bark, or when the ſtomach will not bear it, it may be given by clyſter. Half an ounce of the powder of bark, ſuſpended in four ounces of warm water, by the help of two teaſpoonsful of gum arabic, with ſix or eight drops of laudanum, in the form recommended by Dr. Lind for an adult, and this to be repeated

* See Appendix, *Saline Mixture.*

every fourth hour, or oftener, as the occaſion ſhall require. For children, the quantity of powder and laudanum muſt be proportionably leſſened. Children have been cured of agues, by making them wear a waiſtcoat with powdered bark quilted between the folds of it; by bathing them frequently in a ſtrong decoction of the bark, and by rubbing the ſpine with ſtrong ſpirits, or with a mixture of equal parts of laudanum and the ſaponaceous liniment.

We have been the more full upon this ſubject, becauſe it is very common, and becauſe few patients in an ague apply to phyſicians, unleſs in extremities. There are, however, many caſes in which the diſeaſe is very irregular, being complicated with other diſeaſes, or attended with ſymptoms which are both very dangerous and very difficult to underſtand. All theſe we have purpoſely paſſed over, as they would only bewilder the generality of readers. When the diſeaſe is very irregular, or the ſymptoms dangerous, the patient ought immediately to apply to a phyſician, and ſtrictly to follow his advice.

To prevent agues, people muſt endeavour to avoid their cauſes. Theſe have been already pointed out in the beginning of this ſection; we ſhall therefore only add one preventive medicine, which may be of uſe to ſuch as are obliged to live in low marſhy countries, or who are liable to frequent attacks of this diſeaſe.

Take a large tea-ſpoonful of good Peruvian bark three times a-day, in a little water, or wine and water.

CHAP. XV.

Of an Acute Continual Fever.

THIS fever is denominated acute, ardent, or inflammatory. It moſt commonly attacks the young, or perſons about the prime or vigour of life, eſpecially ſuch as live high, abound with blood, and whoſe fibres are ſtrong and elaſtic. It ſeizes people at all ſeaſons of the year; but is moſt frequent in the ſpring.

CAUSES.—An ardent fever may be occaſioned by any thing that overheats the body, or produces plethora, as violent exerciſe, ſleeping in the ſun, drinking ſtrong liquors, eating ſpiceries, a full diet, with little exerciſe, &c. It may likewiſe be occaſioned by whatever obſtructs the perſpiration, as lying on the damp ground, drinking cold liquor when the body is hot, night-watching, or the like.

SYMPTOMS.—A rigour or chilline ſs generally uſhers in this fever, which is ſoon ſucceeded by great heat, a frequent and full pulſe, pain of the head, dry ſkin, redneſs of the eyes, a florid countenance, pains in the back, loins, &c. To theſe ſucceed difficulty of breathing, ſickneſs, with an inclination to vomit. The patient complains of great thirſt, has no appetite for ſolid food, and is reſtleſs; and the tongue, at the beginning is generally clean.

A delirium, exceſſive reſtleſſneſs, great oppreſſion of the breaſt, with laborious reſpiration, ſtarting of the tendons, hiccup, cold clammy ſweats, and an involuntary diſcharge of urine, are very dangerous ſymptoms.

As

As this diſeaſe is always attended with danger, the beſt medical aſſiſtance ought to be procured as ſoon as poſſible. Nothing can be more unaccountable than the conduct of thoſe who have it in their power, at the beginning of a fever to procure the beſt medical aſſiſtance, yet put it off till things come to an extremity. When the diſeaſe, by delay or wrong treatment, has become incurable, and has exhauſted the ſtrength of the patient, it is in vain to hope for much relief from medicine. Phyſicians may indeed aſſiſt Nature; but their attempts will prove fruitleſs, when ſhe is no longer able to co-operate with their endeavours.

REGIMEN.—From the ſymptoms of this diſeaſe, it is evident that the blood and other humors require to be diluted; that the perſpiration, urine, ſaliva, and all the other ſecretions, are in too ſmall quantity; that the veſſels are rigid, and the heat of the whole body too great: all theſe clearly point out the neceſſity of a regimen calculated to dilute the blood, correct the acrimony of the humors, allay the exceſſive heat, remove the ſpaſmodic ſtricture of the veſſels, and promote the ſecretions.

Theſe important purpoſes may be greatly promoted by drinking plentifully of diluting liquors; as water-gruel, or oatmeal tea, clear whey, barley-water, balm-tea, apple-tea, &c. Theſe may be ſharpened with juice of orange, jelly of currants, raſpberries, and ſuch like: orange-whey is likewiſe an excellent cooling drink. It is made by boiling among milk and water a bitter orange ſliced, till the curd ſeparates. If no orange can be had, a lemon, a little cream of tartar, or a few ſpoonfuls of vinegar, will have the ſame effect.

If the patient be coſtive, an ounce of tamarinds, with two ounces of ſtoned raiſins of the ſun, and a

couple of figs, may be boiled in three pints of water to a quart. This makes a very pleaſant drink, and may be uſed at diſcretion. The common pectoral infuſion is likewiſe a very proper drink in this diſeaſe. A tea-cupful of it may be taken every two hours, or oftener, if the patient's heat and thirſt be very great*

The above liquids muſt all be drank a little warm. They may be uſed in ſmaller quantities at the beginning of a fever, but more freely afterwards, in order to aſſiſt in carrying off the diſeaſe by promoting the different excretions. We have mentioned a variety of drinks, that the patient may have it in his power to chuſe thoſe which are moſt agreeable; and that, when tired of one, he may have recourſe to another.

The patient's diet muſt be very ſpare and light. All ſorts of fleſh-meats, and even chicken-broths, are to be avoided. He may be allowed panada, or light bread boiled in water; to which may be added, a few grains of common ſalt, and a little ſugar, which will render it more palatable. He may eat roaſted apples with a little ſugar, toaſted bread with jelly of currants, boiled prunes, &c.

It will greatly relieve the patient, eſpecially in an hot ſeaſon, to have freſh air frequently let into his chamber. This, however, muſt always be done in ſuch a manner as not to endanger his catching cold.

It is too common in fevers to load the patient with bed clothes, under the pretence of making him ſweat, or defending him from the cold. This cuſtom is always wrong, and has many ill effects. It increaſes the heat of the body, fatigues the patient, and retards, inſtead of promoting, the perſpiration.

* See Appendix, *Pectoral infuſion.*

Sitting

Sitting upright in bed, if the patient is able to bear it, will often have a good effect. It relieves the head, by retarding the motion of the blood to the brain. But this poſture ought never to be continued too long: and if the patient is inclined to ſweat, it will be more ſafe to let him lie, only raiſing his head a little with pillows. The judicious Sydenham has adviſed, with great propriety, to let the patient lie on the bed with his clothes on, unleſs where we wiſh to promote a ſweat.

Sprinkling the chamber with vinegar will greatly refreſh the patient. This ought to be done frequently, eſpecially if the weather is hot.

The patient's mouth ſhould be often waſhed with a mixture of water and honey, to which a little vinegar may be added, or with a decoction of figs in barley-water. His feet ought likewiſe frequently to be bathed at bed-time, in lukewarm water; eſpecially if the head is affected.

The patient ſhould be kept as quiet and eaſy as poſſible. Company, noiſe, and every thing that diſturbs the mind, is hurtful. Even too much light, or any thing that affects the ſenſes, ought to be avoided. His attendants ſhould be as few as poſſible, and they ought not to be too often changed. His inclinations ought rather to be ſoothed than contradicted; even the promiſe of what he craves will often ſatisfy him as much as its reality.

MEDICINE.—In this and all other fevers, attended with a hard, full, quick pulſe, bleeding is of the greateſt importance. This operation ought always to be performed as ſoon as the ſymptoms of an inflammatory fever appear. The quantity of blood to be taken away, however, muſt be in proportion to the ſtrength of the patient and the violence of the diſeaſe. If, after the firſt bleeding, the fever ſhould increaſe, and the pulſe become more frequent and

hard, there will be a neceſſity for repeating it a ſecond, and perhaps a third, or even a fourth time; which may be done at the diſtance of twelve, eighteen, or twenty-four hours from each other, as the ſymptoms require. If the pulſe continues ſoft, and the patient is tolerably eaſy after the firſt bleeding, it need not be repeated.

If the heat and fever be very great, forty or fifty drops of the dulcified or ſweet ſpirit of nitre may be made into a draught, with three ounces of common water, and a bit of loaf-ſugar. This draught may be given to the patient every three or four hours while the fever is violent; afterwards once in five or ſix hours will be ſufficient.

If the body is bound, an ounce of Glauber ſalts ſhould be given, after which a clyſter of milk and water with a little ſalt, and a ſpoonful of ſweet oil or freſh butter in it, ought daily to be adminiſtered. Should this not have the deſired effect, a tea-ſpoonful of magneſia alba, or cream of tartar may be frequently put into his drink. He may likewiſe eat tamarinds, boiled prunes, roaſted apples, and the like. After this, if the fever continues, give the nitrous powders. *See* Appendix.

If about the tenth, eleventh, or twelfth day, the pulſe becomes more ſoft, the tongue moiſter, and the urine begins to let fall a reddiſh ſediment, there is reaſon to expect a favourable iſſue to the diſeaſe. But if, inſtead of theſe ſymptoms, the patient's ſpirits grow languid, his pulſe ſinks, and his breathing becomes difficult; with a ſtupor, trembling of the nerves, ſtarting of the tendons, &c. there is reaſon to fear that the conſequences will be fatal. In this caſe bliſtering plaſters muſt be applied to the head, ancles, inſide of the legs or thighs, as there may be occaſion; poultices of wheat bread, muſtard, and vinegar may likewiſe be applied to the ſoles of the feet,

feet, and the patient muſt be ſupported with cordials, as ſtrong wine-whey, negus, ſago-gruel with wine in it, and ſuch like.

A proper regimen is not only neceſſary during the fever, but likewiſe after the patient begins to recover. Though the body is weak after a fever, yet the diet for ſome time ought to be rather light than of too nouriſhing a nature. Too much food, drink, exerciſe, company, &c. are carefully to be avoided. The mind ought likewiſe to be kept eaſy, and the patient ſhould not attempt to purſue ſtudy, or any buſineſs that requires intenſe thinking.

If the digeſtion is bad, or the patient is ſeized at times with feveriſh heats, an infuſion of Peruvian bark in cold water will be of uſe. It will ſtrengthen the ſtomach, and help to ſubdue the remains of the fever.

Thoſe who follow laborious employments ought not to return too ſoon to their labour after a fever, but ſhould keep eaſy till their ſtrength and ſpirits are ſufficiently recruited*.

* The pure acute continual fever is ſeldom met with; however, as it generally accompanies local inflammations, ſuch as pleuriſy, rheumatiſm, &c. I have retained this chapter; more eſpecially as the remarks contained in it are very judicious.

CHAP. XVI.

Of the Pleuriſy.

THE true pleuriſy is an inflammation of that membrane called the *pleura*, which lines the inſide of the breaſt. There is likewiſe a ſpecies of this diſeaſe, which is called the *ſpurious* or *baſtard pleuriſy*, in which the pain is more external, and chiefly affects the muſcles between the ribs. This is, ſtrictly ſpeaking, a rheumatiſm. It is moſt frequent in the ſpring ſeaſon.

CAUSES.—The pleuriſy may be occaſioned by whatever obſtructs the perſpiration; as cold winds; drinking cold liquors when the body is hot; ſleeping without doors on the damp ground; wet clothes; plunging the body into cold water, or by expoſing it to the cold air, when covered with ſweat, &c. It may likewiſe be occaſioned by drinking ſtrong liquors; by the ſtoppage of uſual evacutions; as old ulcers, iſſues, ſweating of the feet or hands, &c. the ſudden ſtriking in of any eruption, as the itch, the meaſles, or the ſmall-pox, or by a miſplaced gout, or by worms. Keeping the body too warm by means of fire, clothes, &c. renders it more liable to this diſeaſe. A pleuriſy may likewiſe be occaſioned by violent exerciſe, as running, wreſtling, leaping, or by ſupporting great weight, blows on the breaſt, &c. A bad conformation of the body renders perſons more liable to this diſeaſe, as a narrow cheſt, a ſtraitneſs of the arteries of the pleura, &c.

SYMP-

SYMPTOMS.—This, like moſt other fevers, generally begins with chilline ſs and ſhivering, which are followed by heat, thirſt, and reſtleſſneſs. To theſe ſucceeds a violent pricking pain in one of the ſides among the ribs. Sometimes the pain extends towards the back-bone, ſometimes towards the fore-part of the breaſt, and at other times towards the ſhoulder blades. The pain is generally moſt violent when the patient draws his breath. A diſtreſſing cough uſually attends this diſeaſe.

The pulſe, is commonly quick and hard, the urine high coloured; and if blood be let, it is covered with a tough cruſt, or buffy coat. The patient's ſpittle is at firſt thin, but afterwards it becomes groſſer, and is often ſtreaked with blood.

REGIMEN.—Nature often endeavours to carry off this diſeaſe by a critical diſcharge of blood from ſome part of the body, or by expectoration, ſweat, looſe ſtools, or the like. We ought, therefore, to ſecond her intentions by leſſening the force of the circulation, relaxing the veſſels, diluting the humors, and promoting expectoration.

For theſe purpoſes the diet, as in the former diſeaſe, ought to be cool, ſlender, and diluting. The patient muſt avoid all food that is viſcid, hard of digeſtion, or that affords much nourſhment; as fleſh, butter, cheeſe, eggs, milk, and alſo every thing that is of an heating nature. His drink may be whey, or an infuſion of pectoral and balſamic vegetables*.

Barley-water, with a little honey or jelly of currants mixed with it, or merely ſweetened with ſugar, is likewiſe a very proper drink in this diſeaſe. It is made by boiling an ounce of barley in three pints of water to two, which muſt afterwards be ſtrained. The decoction of tamarinds, figs, and raiſins, recommended

* See Appendix, *Pectoral infuſion.*

in

in the preceding diſeaſe, is here likewiſe very proper. Theſe and other diluting liquors are not to be drank in large quantities at a time, but the patient ought to keep continually ſipping them, ſo as to render his mouth and throat always moiſt. All his food and drink ſhould be taken juſt warm.

The patient ſhould be kept quiet, cool, and every way eaſy, as directed under the foregoing diſeaſe. His feet ought daily to be bathed in lukewarm water; and he may ſometimes ſit up in bed for a ſhort ſpace, in order to relieve his head.

MEDICINE.—Almoſt every perſon knows, when a fever is attended with a violent pain of the ſide, and a quick hard pulſe, that bleeding is neceſſary. When theſe ſymptoms come on, the ſooner this operation is performed the better; and the quantity at firſt muſt be pretty large, provided the patient is able to bear it. A large quantity of blood let at once, in the beginning of a pleuriſy, has a much better effect than repeated ſmall bleedings. A man may loſe twelve or fourteen ounces of blood as ſoon as it is certainly known that he is ſeized with a pleuriſy. For a younger perſon, or one of a delicate conſtitution, the quantity muſt be leſs. A bliſter may be applied on the painful part, five or ſix hours after the bleeding, if the pain continues, and the pulſe does not require another bleeding.

If, after the firſt bleeding and bliſtering, the ſtitch, with the other violent ſymptoms, ſhould ſtill continue, it will be neceſſary, at the diſtance of twelve or eighteen hours, to let eight or nine ounces more. If the ſymptoms do not then abate, and the blood ſhews a ſtrong buffy coat, a third or even a fourth bleeding may be requiſite. If the pain of the ſide abates, the pulſe becomes ſofter, or the patient begins to ſpit freely, bleeding ought not to be repeated.

This

This operation is ſeldom neceſſary after the third or fourth day of the fever.

There are many things that may be done to eaſe the pain of the ſide without bleeding, as fomenting, &c. Fomentations may be made by boiling an handful of the flowers of elder, camomile, and common mallows, or any other ſoft vegetables, in a proper quantity of water. The herbs may be either put into a flannel bag, and applied warm to the ſide, or flannels may be dipped in the decoction, afterwards wrung out, and applied to the part affected, with as much warmth as the patient can eaſily bear. As the cloths grow cool, they muſt be changed, and great care taken that the patient do not catch cold. A bladder may be filled with warm milk and water, and applied to the ſide, if the above method of fomenting be found inconvenient. Fomentations not only eaſe the pain, but relax the veſſels, and prevent the ſtagnation of the blood and other humors. The ſide may likewiſe be frequently rubbed with a little of the volatile liniment*.

Topical bleeding has often a very good effect in this diſeaſe. It may either be performed by applying a number of leeches to the part affected, or by cupping, which is both a more certain and expeditious method than the other.

Leaves of various plants might likewiſe be applied to the patient's ſide with advantage. I have often ſeen great benefit from young cabbage-leaves applied warm to the ſide in a pleuriſy. Theſe not only relax the parts, but likewiſe draw off a little moiſture. To prevent a ſtrangury when the bliſtering-plaſter is on, the patient may drink freely of barley-water, or an emulſion of gum arabic, or quince-ſeed tea.

* See Appendix, *Volatile liniment.*

If

If the patient is coſtive, a purge of glauber ſalts or a clyſter of thin water-gruel, or of barley-water, in which a handful of mallows, or any other emollient vegetable has been boiled, may be daily adminiſtered. This will not only empty the bowels, but have the effect of a warm fomentation applied to the inferior viſcera, which will help to make a derivation from the breaſt.

The expectoration, or ſpitting may be promoted by drinking plentifully of barley-water, flaxſeed-tea, or bran-tea. If medicines are neceſſary, when the patient is not much reduced, give one of the nitrous powders every two or three hours; if the pulſe is low, one of the volatile boluſes in the ſame time. When the cough is troubleſome, uſe the paregoric mixture. *See* Appendix.

We ſhall only mention one medicine more, which ſome reckon almoſt a ſpecific in the pleuriſy, *viz.* the decoction of the ſeneka rattle-ſnake root*. After bleeding and other evacuations have been premiſed, the patient may take two, three, or four table-ſpoonfuls of this decoction, according as his ſtomach will bear it, three or four times a-day. If it ſhould occaſion vomiting, two or three ounces of ſimple cinnamon-water may be mixed with the quantity of decoction here directed, or it may be taken in ſmaller doſes. As this medicine promotes perſpiration and urine, and likewiſe keeps the body eaſy, it may be of ſome ſervice in a pleuriſy, or any other inflammation of the breaſt.

No one will imagine that theſe medicines are all to be uſed at the ſame time. We have mentioned different things, on purpoſe that people may have it in their power to chuſe; and likewiſe, that when one cannot be obtained, they may make uſe of another.

* See Appendix, *Decoction of ſeneka root.*

other. Different medicines are no doubt neceſſary in the different periods of a diſorder; and where one fails of ſucceſs, or diſagrees with the patient, it will be proper to try another.

What is called the criſis, or height of the fever, is ſometimes attended with very alarming ſymptoms, as difficulty of breathing, an irregular pulſe, convulſive motions, &c. Theſe are apt to frighten the attendants, and induce them to do improper things, as bleeding the patient, giving him ſtrong ſtimulating medicines, or the like. But they are only the ſtruggles of Nature to overcome the diſeaſe, in which ſhe ought to be aſſiſted by plenty of diluting drink, which is then peculiarly neceſſary. If the patient's ſtrength, however, be much exhauſted by the diſeaſe, it will be neceſſary at this time to ſupport him with frequent ſmall draughts of wine-whey, negus, or the like.

When the pain and fever are gone, it will be proper, after the patient has recovered ſufficient ſtrength, to give him ſome gentle purges, as thoſe directed towards the end of the acute continual fever. He ought likewiſe to uſe a light diet, of eaſy digeſtion, and his drink ſhould be butter-milk, whey, and other things of a cleanſing nature.

OF THE BASTARD PLEURISY.

That ſpecies of pleuriſy which is called the *baſtard* or *ſpurious*, generally goes off by keeping warm for a few days, drinking plenty of diluting liquors, and obſerving a cool regimen.

It is known by a dry cough, a quick pulſe, and a difficulty of lying on the affected ſide, which laſt does not often happen in the true pleuriſy. Sometimes indeed this diſeaſe proves obſtinate, and requires bleeding, with cupping, and ſcarifications of the part affected,

ed. Theſe, together with the uſe of nitrous and other cooling medicines, ſeldom fail to effect a cure.

OF THE PARAPHRENITIS.

THE *paraphrenitis*, or inflammation of the diaphragm, is ſo nearly connected with the pleuriſy, and reſembles it ſo much in the manner of treatment, that it is ſcarcely neceſſary to conſider it as a ſeparate diſeaſe.

It is attended with a very acute fever, and an extreme pain in the part affected, which is generally augmented by coughing, ſneezing, drawing in the breath, taking food, going to ſtool, making water, &c. Hence the patient breathes quick, and draws in his bowels to prevent the motion of the diaphragm; is reſtleſs, anxious, has a dry cough, an hiccup, and often a delirium. A convulſive laugh, or rather a kind of involuntary grin, is no uncommon ſymptom of this diſeaſe.

Every method muſt be taken to prevent a ſuppuration. The regimen and medicine are in all reſpects the ſame as in the pleuriſy. We ſhall only add, that in this diſeaſe emollient clyſters are peculiarly uſeful, as they relax the bowels, and by that means make a derivation from the part affected.

CHAP.

CHAP. XVII.

Of a Peripneumony, or Inflammation of the Lungs.

AS this diſeaſe affects an organ which is abſolutely neceſſary to life, it muſt always be attended with danger. Perſons whoſe fibres are tenſe and rigid, who feed upon groſs aliment, and drink ſtrong viſcid liquors, are moſt liable to a peripneumony. It is moſt fatal to thoſe who have a flat breaſt or narrow cheſt, and to ſuch as are afflicted with an aſthma, eſpecially in the decline of life. Sometimes the inflammation reaches to one lobe of the lungs only, at other times the whole of the organ is affected; in which caſe the diſeaſe can hardly fail to prove fatal.

When the diſeaſe proceeds from a viſcid pituitous matter obſtructing the veſſels of the lungs, it is called a *ſpurious* or *baſtard peripneumony*. When it ariſes from a thin acrid defluction on the lungs, it is denominated a *catarrhal peripneumony*, &c.

CAUSES.——An inflammation of the lungs is ſometimes a primary diſeaſe, and ſometimes it is the conſequence of other diſeaſes, as a quinſey, a pleuriſy, &c. It proceeds from the ſame cauſes as the pleuriſy, *viz.* an obſtructed perſpiration from cold, wet clothes, &c. or from an increaſed circulation of the blood by violent exerciſe, the uſe of ſpiceries, ardent ſpirits, and ſuch like. The pleuriſy and peripneumony are often complicated; in which caſe the diſeaſe is called a *pleuro-peripneumony**.

* The fact is, that it is difficult to diſtinguiſh between a pleuriſy and peripneumony; and the ſame treatment is proper for both.

SYMP-

SYMPTOMS.—Moſt of the ſymptoms of a pleuriſy likewiſe attend an inflammation of the lungs; only in the latter the pulſe is more ſoft, and the pain leſs acute; but the difficulty of breathing, and oppreſſion of the breaſt, are generally greater.

REGIMEN.—As the regimen and medicine are in all reſpects the ſame in the true peripneumony as in the pleuriſy, we ſhall not here repeat them, but refer the reader to the treatment of that diſeaſe. It may not, however, be improper to add, that the aliment ought to be more ſlender and thin in this than in any other inflammatory diſeaſe. The learned Dr. Arbuthnot aſſerts, that even common whey is ſufficient to ſupport the patient, and that decoctions of barley, and infuſions of fennel roots in warm water, with milk are the moſt proper both for drink and nouriſhment. He likewiſe recommends the ſteam of warm water taken in by the breath, which ſerves as a kind of internal fomentation. If the patient has looſe ſtools, but is not weakened by them, they are not to be ſtopped, but rather promoted by the uſe of emollient clyſters.

It has already been obſerved, that the *ſpurious* or *baſtard* peripneumony is occaſioned by a viſcid pituitous matter obſtructing the veſſels of the lungs. It commonly attacks the old, infirm, and phlegmatic, in winter and wet ſeaſons.

The patient at the beginning is cold and hot by turns, has a ſmall quick pulſe, feels a ſenſe of weight upon his breaſt, breathes with difficulty, and ſometimes complains of a pain and giddineſs of his head. His urine is uſually pale, and his colour very little changed.

The diet in this, as well as in the true peripneumony, muſt be very ſlender, as weak broths, ſharpened with the juice of orange or lemon, and ſuch like.

like. His drink may be thin water-gruel, ſweetened with honey, or a decoction of the roots of fennel and liquorice. An ounce of each of theſe may be boiled in three pints of water to a quart, and ſharpened with a little currant-jelly or the like.

Bleeding and purging are generally proper at the beginning of this diſeaſe. It will be ſufficient to aſſiſt the expectoration, by ſome of the medicines recommended for that purpoſe in the pleuriſy, as the ſolution of gum ammoniac with oxymel of ſquills, &c. Bliſtering plaſters have generally a good effect, and ought to be applied pretty early.

If the patient does not ſpit, he muſt be bled according as his ſtrength will permit, and have a gentle purge adminiſtered. Afterwards his body may be kept open by clyſters, and the expectoration promoted, by taking every four hours two table-ſpoonfuls of the ſolution mentioned above.

When an inflammation of the breaſt does not yield to bleeding, bliſtering, and other evacuations, it commonly ends in a ſuppuration, which is more or leſs dangerous, according to the part where it is ſituated. When this happens in the pleura, it ſometimes breaks outwardly, and the matter is diſcharged by the wound.

When the ſuppuration happens within the ſubſtance or body of the lungs, the matter may be diſcharged by expectoration; but if the matter floats in the cavity of the breaſt, between the pleura and the lungs, it can only be diſcharged by an inciſion made betwixt the ribs.

If the patient's ſtrength does not return, after the inflammation is, to all appearance, removed; if his pulſe continues quick, though ſoft, his breathing difficult and oppreſſed; if he has cold ſhiverings at times, his cheeks flushed, his lips dry; and if he complains of thirſt, and want of appetite, there is

reaſon to fear a ſuppuration, and that a phthiſis, or conſumption of the lungs will enſue. We ſhall, therefore, next proceed to conſider the proper treatment of that diſeaſe.

CHAP. XVIII.

Of Conſumptions.

A CONSUMPTION is a waſting or decay of the whole body, from an ulcer, tubercles, or concretions of the lungs, or an empyema.

Dr. Arbuthnot obſerves that, in his time, conſumptions made up above one-tenth part of the bills of mortality, in and about London. There is reaſon to believe they have rather increaſed ſince; and we know from experience, that they are not leſs fatal in ſome other towns of England, than in London.

Young perſons, between the age of fifteen and thirty, of a ſlender make, long neck, high ſhoulders, and flat breaſts, are moſt liable to this diſeaſe.

Conſumptions prevail more in England than in any other part of the world, owing, perhaps, to the great uſe of animal food, and the general application to ſedentary employments. To which we may add, the perpetual changes in the atmoſphere, or variableneſs of the weather.

CAUSES.—It has already been obſerved, that an inflammation of the breaſt often ends in an impoſthume: conſequently, whatever diſpoſes to this diſeaſe,

diſeaſe, muſt likewiſe be conſidered as a cauſe of conſumption.

Other diſeaſes, by vitiating the habit, may likewiſe occaſion conſumptions; as the ſcurvy, the ſcrophula, or king's evil, the venereal diſeaſe, the aſthma, ſmall-pox, meaſles, &c.

As this diſeaſe is too ſeldom cured, we ſhall endeavour the more particularly to point out its cauſes, in order that people may be enabled to avoid it. Theſe are:

——Confined or unwholeſome air. When this fluid is impregnated with the fumes of metals, or minerals, it proves extremely hurtful to the lungs, and often corrodes the tender veſſels of that neceſſary organ.

——Violent paſſions, exertions or affections of the mind; as grief, diſappointment, anxiety, or cloſe application to the ſtudy of abſtruſe arts or ſciences.

——Great evacuations; as ſweating, diarrhœas, diabetes, exceſſive venery, the fluor albus, an overdiſcharge of the menſtrual flux, giving ſuck too long, &c.

——The ſudden ſtoppage of cuſtomary evacuations; as the bleeding piles, ſweating of the feet, bleeding at the noſe, the menſes, iſſues, ulcers, or eruptions of any kind.

——Injuries done to the lungs, calculi, &c. I lately ſaw the ſymptoms of a phthiſis occaſioned by a ſmall bone ſticking in the *bronchiæ*. It was afterwards vomited along with a conſiderable quantity of purulent matter, and the patient, by a proper regimen, and the uſe of the Peruvian bark, recovered.

——Making a ſudden tranſition from a hot to a very cold climate, change of apparel, or whatever greatly leſſens the perſpiration.

——Frequent and exceſſive debaucheries. Late watching, and drinking ſtrong liquors, which generally go together, can hardly fail to deſtroy the lungs. Hence the *bon compagnon* generally falls a ſacrifice to this diſeaſe.

——Infection. Conſumptions are likewiſe caught by ſleeping with the diſeaſed; for which reaſon, this ſhould be carefully avoided. It cannot be of great benefit to the ſick, and muſt hurt thoſe in health.

——Occupations in life. Thoſe artificers who ſit much, and are conſtantly leaning forward, or preſſing upon the ſtomach and breaſt, as cutlers, taylors, ſhoe-makers, ſeamſtreſſes, &c. often die of conſumptions. They likewiſe prove fatal to ſingers, and all who have occaſion to make frequent and violent exertions of the lungs. *

——Cold. More conſumptive patients date the beginning of their diſorders from wet feet, damp beds, night air, wet clothes, or catching cold after the body had been heated, than from all other cauſes.

Sharp, ſaline, and aromatic aliments, which heat and inflame the blood, are likewiſe frequently the cauſe of conſumptions.

We ſhall only add, that this diſeaſe is often owing to an hereditary taint, or a ſcrophulous habit.

SYMPTOMS.—This diſeaſe generally begins with a dry cough, which often continues for ſome months. If a diſpoſition to vomit after eating be excited by it, there is ſtill greater reaſon to fear an approaching conſumption. The patient complains of a more than uſual degree of heat, a pain and oppreſſion of the breaſt, eſpecially after motion; his

* An eminent phyſician of our country (Dr. Ruſh) is, however, of a different opinion, and recommends ſinging as a cure for this diſeaſe. See his Medical Inquiries and Obſervations.

ſpittle

ſpittle is of a ſaltiſh taſte, and ſometimes mixed with blood. He is apt to be ſad; his appetite is bad, and his thirſt great. There is often a quick, ſoft, ſmall pulſe; though ſometimes the pulſe is pretty full, and rather hard. Sometimes it is ſmall and hard. Theſe are the common ſymptoms of a beginning conſumption.

Afterwards, the cough increaſes, the patient begins to ſpit a greeniſh, white, or bloody matter. His body is extenuated by the hectic fever, and colliquative ſweats, which mutually ſucceed one another, *viz.* the one towards night, and the other in the morning. A looſeneſs, and an exceſſive diſcharge of urine, are often troubleſome ſymptoms at this time, and greatly weaken the patient. There is a burning heat in the palms of the hands, and the face generally flushes after eating; the fingers become remarkably ſmall, the nails are bent inwards, and the hairs fall off.

At laſt a diarrhœa, the ſwelling of the feet and legs, the total loſs of ſtrength, the ſinking of the eyes, the difficulty of ſwallowing, and the coldneſs of the extremities, ſhew the immediate approach of death, which, however, the patient ſeldom believes to be ſo near. Such is the uſual progreſs of this fatal diſeaſe, which, if not early checked, commonly ſets all medicine at defiance.

REGIMEN.—On the firſt appearance of a conſumption, if the patient lives in a large town, or any place where the air is confined, he ought *immediately* to quit it, and to make choice of a ſituation in the country, where the air is pure and free. Here he muſt not remain inactive, but take every day as much exerciſe as he can bear.

The beſt method of taking exerciſe is to ride on horſeback, as this gives the body a great deal of motion without much fatigue. Such as cannot bear

this kind of exercise, must make use of a carriage. A long journey, as it amuses the mind by a continual change of objects, is greatly preferable to riding the same ground over and over. Care, however, must be taken to avoid catching cold from wet clothes, damp beds, or the like. The patient ought always to finish his ride in the morning, or at least before dinner; otherwise it will oftener do harm than good.

It is a pity that those who attend the sick seldom recommend riding in this disease, till the patient is either unable to bear it, or the malady has become incurable. Patients are likewise apt to trifle with every thing that is in their own power. They cannot see how one of the common actions of life should prove a remedy in an obstinate disease, and therefore they reject it, while they greedily hunt after relief from medicine, merely because they do not understand it.

Those who have strength and courage to undertake a pretty long voyage, may expect great advantage from it. This, to my knowledge, has frequently cured a consumption after the patient was, to all appearance, far advanced in that disease, and where medicine had proved ineffectual. Hence it is reasonable to conclude, that if a voyage were undertaken in due time, it would seldom fail to perform a cure. *

Such as try this method of cure, ought to carry as much fresh provisions along with them as will serve

* Two things chiefly operate to prevent the benefits which would arise from sailing. The one is, that physicians seldom order it till the disease is too far advanced; and the other is, that they seldom order a voyage of sufficient length. A patient may receive no benefit by crossing the channel, who, should he cross the Atlantic, might be completely cured. Indeed, we have reason to believe, that a voyage of this kind, if taken in due time, would seldom fail to cure a consumption.

for

for the whole time they are at ſea. When milk is not eaſily to be obtained in this ſituation, they ought to live upon fruits, and the broth of chickens or other young animals which can be kept alive on board. It is ſcarcely neceſſary to add, that ſuch voyages ſhould be undertaken, if poſſible, in the mildeſt ſeaſon, and that they ought to be towards a warmer climate. *

Thoſe who have not courage for a long voyage, may travel into a more ſouthern climate, as the ſouth of France, Spain, or Portugal; and if they find the air of theſe countries agree with them, they ſhould continue there, at leaſt till their health be confirmed. †

Next to proper air and exerciſe, we would recommend a due attention to diet. The patient ſhould eat nothing that is either heating or hard of digeſtion, and his drink muſt be of a ſoft and cooling nature. All the diet ought to be calculated to leſſen the inflammatory ſtate of the ſyſtem, and to nouriſh and ſupport the patient. For this purpoſe he muſt keep chiefly to the uſe of vegetables and milk. Milk alone is of more value in this diſeaſe, than the whole *materia medica*.

Aſſes milk is commonly reckoned preferable to any other; but it cannot always be obtained; beſides, it is generally taken in a very ſmall quantity; whereas, to produce any effects, it ought to make a conſiderable part of the patient's diet. It is hardly to be expected, that a gill or two of aſſes milk, drank

* Though I did not remember to have ſeen one inſtance of a genuine conſumption of the lungs cured by medicine, yet I have known a Weſt India voyage work wonders in that dreadful diſorder.

† For Americans, we may recommend the ſame voyage, if practicable. If not, they may go to the ſouthern ſtates in winter, and to the eaſtern ſtates in ſummer. If a journey by land is preferred, the back parts of our country are the beſt.

in the ſpace of twenty-four hours, ſhould be able to produce any conſiderable change in an adult; and when people do not perceive its effects ſoon, they loſe hope, and ſo leave it off. Hence it happens, that this remedy, however valuable, very ſeldom performs a cure. The reaſon is obvious; it is commonly uſed too late, is taken in too ſmall quantities, and is not duly perſiſted in.

I have known extraordinary effects from aſſes milk in obſtinate coughs, which threatened a conſumption of the lungs; and do verily believe, if uſed at this period, that it would ſeldom fail; but if it be delayed till an ulcer is formed, which is generally the caſe, how can it be expected to ſucceed?

Aſſes milk ought to be drank, if poſſible, in its natural warmth, and, by a grown perſon, in the quantity of half a pint at a time. Inſtead of taking this quantity night and morning only, the patient ought to take it four times, or at leaſt thrice a-day, and to eat a little light bread along with it, ſo as to make it a kind of meal.

If the milk ſhould happen to purge, it may be mixed with old conſerve of roſes. When that cannot be obtained, the powder of crabs claws may be uſed in its ſtead. Aſſes milk is uſually ordered to be drank warm in bed; but as it generally throws the patient into a ſweat when taken in this way, it would perhaps be better to give it after he riſes.

Some extraordinary cures in conſumptive caſes have been performed by women's milk. Could this be obtained in ſufficient quantity, we would recommend it in preference to any other. It is better if the patient can ſuck it from the breaſt, than to drink it afterwards. I knew a man who was reduced to ſuch a degree of weakneſs in a conſumption, as not to be able to turn himſelf in bed. His wife was at that time giving ſuck, and the child happening to die,

die, he ſucked her breaſt, not with a view to reap any advantage from the milk, but to make her eaſy. Finding himſelf, however, greatly benefited by it, he continued to ſuck her till he became perfectly well and is at preſent a ſtrong and healthy man.

Some prefer butter-milk to any other, and it is indeed a very valuable medicine, if the ſtomach be able to bear it. It does not agree with every perſon at firſt; and is therefore often laid aſide without a ſufficient trial. It ſhould at firſt be taken ſparingly, and the quantity gradually increaſed, until it comes to be almoſt the ſole food. I never knew it ſucceed unleſs where the patient almoſt lived upon it.

Cows milk is moſt readily obtained of any, and though it be not ſo eaſily digeſted as that of aſſes or mares, it may be rendered lighter by adding to it an equal quantity of water, or allowing it to ſtand for ſome hours, and afterwards taking off the cream. If it ſhould, notwithſtanding, prove heavy on the ſtomach, a ſmall quantity of brandy, with a little ſugar, may be added, which will render it both more light and nouriſhing.

It is not to be wondered at, that milk ſhould for ſome time diſagree with a ſtomach that has not been accuſtomed to digeſt any thing but fleſh and ſtrong liquors, which is the caſe with many of thoſe who fall into conſumptions. We do not, however, adviſe thoſe who have been accuſtomed to animal food and ſtrong liquors, to leave them off all at once. This might be dangerous. It will be neceſſary for ſuch to eat a little once a-day of the fleſh of ſome young animal, or rather to uſe the broth made of chickens, veal, lamb, or ſuch like. They ought likewiſe to drink a little wine made into negus, or diluted with twice or thrice its quantity of water, and to make it gradually weaker till they can leave it off altogether.

Theſe

Theſe muſt be uſed only as preparatives to a diet conſiſting chiefly of milk and vegetables, which the ſooner the patient can be brought to bear, the better. Rice and milk, or barley and milk, boiled with a little ſugar, is very proper food. Ripe fruits roaſted, baked, or boiled, are likewiſe proper, as gooſeberry or currant tarts, apples roaſted, or boiled in milk, &c. The jellies, conſerves and preſerves, &c. of ripe ſubacid fruits, ought to be eaten plentifully, as the jelly of currants, conſerve of roſes, preſerved plums, cherries, &c.

Wholeſome air, proper exerciſe, and a diet conſiſting chiefly of theſe and other vegetables, with milk, is the only courſe that can be depended on in a beginning conſumption.

In a populous town in England, * where conſumptions are very common, I have frequently ſeen conſumptive patients, who had been ſent to the country with orders to ride, and live upon milk and vegetables, return in a few months quite plump, and free from any complaint. This indeed was not always the caſe, eſpecially when the diſeaſe was hereditary, or far advanced; but it was the only method in which ſucceſs was to be expected: where it failed, I never knew medicine ſucceed.

If the patient's ſtrength and ſpirits flag, he muſt be ſupported by ſtrong broths, jellies, and ſuch like. Some recommend ſhell-fiſh in this diſorder, and with ſome reaſon, as they are nouriſhing and reſtorative. † All the food and drink ought, however, to be taken in ſmall quantities, leſt an overcharge of freſh chyle ſhould oppreſs the lungs,

* Sheffield.

† I have often known perſons of a conſumptive habit, where the ſymptoms were not violent, reap great benefit from the uſe of oyſters. They generally ate them raw, and drank the juice along with them.

and

and too much accelerate the circulation of the blood.

The patient's mind ought to be kept as eaſy and cheerful as poſſible. Conſumptions are often occaſioned, and always aggravated, by a melancholy caſt of mind; for which reaſon muſic, cheerful company, and every thing that inſpires innocent mirth, are highly beneficial. The patient ought ſeldom to be left alone, as brooding over his calamities is ſure to render them worſe.

MEDICINE.—Though the cure of this diſeaſe depends, in a great meaſure, upon regimen and the patient's own endeavours, yet we ſhall mention a few things which may be of ſervice in relieving ſome of the more violent ſymptoms.

In the firſt ſtage of a conſumption, the cough may often be appeaſed by bleeding, to be uſed in ſmall quantities, and repeated, occaſionally, while the pulſe requires it: at the ſame time the patient ſhould live on a milk and vegetable diet, take gentle exerciſe, uſe country air, and apply a bliſter to any part of the breaſt where there is moſt pain, take cooling laxatives; in ſhort, uſe all the means to leſſen inflammation.

It is too common in this ſtage of the diſeaſe to load the patient's ſtomach with oily and balſamic medicines. Theſe, inſtead of removing the cauſe of the diſeaſe, tend rather to increaſe it, by heating the blood, while they pall the appetite, relax the ſolids, and prove every way hurtful to the patient. Whatever is uſed for removing the cough, beſides riding, and other proper regimen, ought to be medicines of a calming nature, as, for example, the paregoric mixture. (Vide Appendix.)

Acids ſeem to have peculiarly good effects in this diſeaſe; they both tend to quench the patient's thirſt, and to cool the blood. The vegetable acids, as

as apples, oranges, lemons, &c. appear to be the moſt proper. I have known patients ſuck the juice of ſeveral lemons and oranges every day with manifeſt advantage, and would for this reaſon recommend acid vegetables to be taken in as great quantity as the ſtomach will bear them.

For the patient's drink we ſhould recommend barley-water, rennet-whey, toaſt and water, &c. Theſe may be drunk at pleaſure. They at the ſame time anſwer all the purpoſes of dilution, and quench thirſt much better than things that are luſcious and ſweet. If the patient ſpits blood, the ſame are proper for his ordinary drink.

There are many other mucilaginous plants and ſeeds, of an healing and agglutinating nature, from which decoctions or infuſions may be prepared with the ſame intentions; as the orchies, the quince-ſeed, coltsfoot, lintſeed, ſarſaparilla, &c. It is not neceſſary to mention the different ways in which theſe may be prepared. Simple infuſion or boiling is all that is neceſſary, and the doſe may be at diſcretion.

The conſerve of roſes is here peculiarly proper. It may either be put into the decoction above deſcribed, or eaten by itſelf. No benefit is to be expected from trifling doſes of this medicine. I never knew it of any ſervice, unleſs where three or four ounces at leaſt were uſed daily for a conſiderable time. In this way I have ſeen it produce very happy effects, and would recommend it wherever there is a diſcharge of blood from the lungs.

When the ſpitting up of groſs matter, oppreſſion of the breaſt, and the hectic ſymptoms, ſhew that an impoſthume is formed in the lungs, ſix grains of ipecacuanha taken every other morning before riſing, and continued for about a week, will be of great ſervice; it will vomit gently. The *vitriolic mucilaginous*

ginous mixture (ſee Appendix) is alſo now of great ſervice, and the paregoric mixture is to be continued, and Peruvian bark.

An ounce of the bark in powder may be divided into eighteen or twenty doſes, of which one may be taken every three hours through the day, in a little ſyrup, or a cup of horehound tea.

If the bark ſhould happen to purge, it may be made into an electuary, with the conſerve of roſes, thus, Take old conſerve of roſes a quarter of a pound, Peruvian bark in powder an ounce, ſyrup of orange or lemon, as much as will make it of the conſiſtence of honey. This quantity will ſerve the patient four or five days, and may be repeated as there is occaſion.

Such as cannot take the bark in ſubſtance, may infuſe it in cold water. Half an ounce of bark in powder may be infuſed for twenty-four hours in half a pint of water. Afterwards let an ordinary tea-cupful of it be taken three or four times a-day.

We would not recommend the bark while there are any ſymptoms of an inflammation of the breaſt; but when it is certainly known that matter is collected there, it is one of the beſt medicines which can be uſed. Few patients indeed have reſolution enough to give the bark a fair trial at this period of the diſeaſe, otherwiſe we have reaſon to believe that ſome benefit might be reaped from it. As long as the bark occaſions no difficulty of breathing it may be taken to advantage. The *tar water* and *tar pills* (ſee Appendix) are very uſeful medicines. If the patient has a fixed pain about the ſternum very conſiderable benefit will be derived by a cauſtic to the part. After the matter is formed, and the expectoration has come on, the vitriolic and paregoric mixtures and bark are to be continued to the cloſe of the diſeaſe.

When

When it is evident that there is an impoſthume in the breaſt, and the matter can neither be ſpit up nor carried off by abſorption, the patient may draw in the ſteams of warm water or vinegar with his breath, &c. When it happens to burſt within the lungs, the matter may be diſcharged by the mouth. Sometimes indeed the burſting of the vomica occaſions immediate death, by ſuffocating the patient. When the quantity of matter is great, and the patient's ſtrength exhauſted, this is commonly the caſe. At any rate the patient is ready to fall into a ſwoon, and ſhould have volatile ſalts or ſpirits held to his noſe.

If the matter diſcharged be thick, and the cough and breathing become eaſier, there may be ſome hopes of a cure. The diet at this time ought to be light, but reſtorative, as chicken-broths, ſago-gruel, rice-milk, &c. the drink, butter-milk, or whey, ſweetened with honey. This is likewiſe a proper time for uſing the Peruvian bark, which may be taken as directed above.

If the vomica or impoſthume ſhould diſcharge itſelf into the cavity of the breaſt, betwixt the pleura and the lungs, there is no way of getting the matter out but by an inciſion, as has already been obſerved. As this operation muſt always be performed by a ſurgeon, it is not neceſſary here to deſcribe it. We ſhall only add, that it is not ſo dreadful as people are apt to imagine, and that it is the only chance the patient in this caſe has for his life.

A NERVOUS CONSUMPTION is a waſting or decay of the whole body, without any conſiderable degree of fever, cough, or difficulty of breathing. It is attended with indigeſtion, weakneſs, and want of appetite, &c.

Thoſe

Thoſe who are of a fretful temper, who indulge in ſpirituous liquors, or who breathe an unwholeſome air, are moſt liable to this diſeaſe.

We would chiefly recommend, for the cure of a nervous conſumption, a light and nouriſhing diet, plenty of exerciſe in a free open air, and the uſe of ſuch bitters as brace and ſtrengthen the ſtomach; as the Peruvian bark, gentian root, camomile, horehound, &c. Theſe may be infuſed in water or wine, and a glaſs of it drank frequently.

It will greatly aſſiſt the digeſtion, and promote the cure of this diſeaſe, to take twice a-day twenty or thirty drops of the elixir of vitriol in a glaſs of wine or water. The chalybeate wine is likewiſe an excellent medicine in this caſe. It ſtrengthens the ſolids, and powerfully aſſiſts nature in the preparation of good blood. *

Agreeable amuſements, cheerful company, and riding about, are, however, preferable to all medicines in this diſeaſe. For which reaſon, when the patient can afford it, we would recommend a long journey of pleaſure, as the moſt likely means to reſtore his health.

What is called a *ſymptomatic conſumption* cannot be cured without firſt removing the diſeaſe by which it is occaſioned. Thus, when a conſumption proceeds from the ſcrophula or king's evil, from the ſcurvy, the aſthma, the venereal diſeaſe, &c. a due attention muſt be paid to the malady from whence it ariſes, and the regimen and medicines directed accordingly.

When *exceſſive evacuations* of any kind occaſion a conſumption, they muſt not only be reſtrained, but the patient's ſtrength muſt be reſtored by gentle exerciſe, nouriſhing diet, and generous cordials. Young and delicate mothers often fall into conſumptions by

* See Appendix, *Chalybeate wine.*

giving

giving ſuck too long. As ſoon as they perceive their ſtrength and appetite begin to fail, and are troubled with chills and fevers, or a pain or weakneſs of the breaſt, they ought immediately to wean the child, or provide another nurſe, otherwiſe they cannot expect a cure.

Before we quit this ſubject, we would earneſtly recommend it to all, as they wiſh to avoid conſumptions, to take as much exerciſe without doors as they can, to avoid unwholeſome air, and to ſtudy ſobriety. Conſumptions owe their preſent increaſe not a little to the faſhion of ſitting up late, eating hot ſuppers, and ſpending every evening over a bowl of hot punch or other ſtrong liquors. Theſe liquors, when too freely uſed, not only hurt the digeſtion, and ſpoil the appetite, but heat and inflame the blood, and ſet the whole conſtitution on fire.

CHAP. XIX.

Of the Slow or Nervous Fever.

NERVOUS fevers have increaſed greatly of late years amongſt us, owing doubtleſs to our different manner of living, and the increaſe of ſedentary employments; as they commonly attack perſons of a weak relaxed habit, who neglect exercife, eat little ſolid food, ſtudy hard, or indulge in ſpirituous liquors.

CAUSES.—Nervous fevers may be occaſioned by whatever depreſſes the ſpirits, or impoveriſhes the blood; as grief, fear, anxiety, want of ſleep, intenſe thought, living on poor watery diet, unripe

fruits, cucumbers, melons, &c. They may likewiſe be occaſioned by damp, confined, or unwholeſome air. Hence they prove moſt fatal to thoſe who live in dirty low houſes, crowded ſtreets, hoſpitals, jails, or ſuch-like places.

Perſons whoſe conſtitutions have been broken by exceſſive venery, frequent ſalivations, too free an uſe of purgative medicines, or by any other exceſſive evacuations, are moſt liable to this diſeaſe.

Keeping on wet clothes, lying on the damp ground, expoſure to the night air, exceſſive fatigue, and whatever obſtructs the perſpiration, may likewiſe occaſion nervous fevers. We ſhall only add, frequent and great irregularities in diet. Too great abſtinence as well as exceſs, is hurtful. Nothing tends ſo much to preſerve the body in a ſound ſtate as a regular diet; nor can any thing contribute more to occaſion fevers of the worſt kind than its oppoſite.

SYMPTOMS.—Low ſpirits, want of appetite, weakneſs, wearineſs after motion, watchfulneſs, deep ſighing, and dejection of mind, are generally the forerunners of this diſeaſe. Theſe are ſucceeded by a quick low pulſe, a dry tongue without any conſiderable thirſt, chillineſs, and flushing in turns, &c.

After ſome time the patient complains of a giddineſs and pain of the head, has a naufea, with retchings and vomiting; the pulſe is quick, and ſometimes intermitting; the urine pale, reſembling dead ſmall beer, and the breathing is difficult, with oppreſſion of the breaſt, and ſlight alienations of mind.

If towards the ninth, tenth, or twelfth day, the tongue becomes more moiſt, with a plentiful ſpitting, a gentle purging, or a moiſture upon the ſkin; or if a ſuppuration happens in one or both ears, or large puſtules break out about the lips and noſe, there is reaſon to hope for a favourable criſis.

But if there is an exceſſive looſeneſs, or waſting ſweats, with frequent fainting fits; if the tongue, when put out trembles exceſſively, and the extremities feel cold, with a fluttering or ſlow creeping pulſe; if there is a ſtarting of the tendons, an almoſt total loſs of ſight and hearing, and an involuntary diſcharge by ſtool and urine, there is reaſon to apprehend conſiderable danger.

REGIMEN.—It is very neceſſary in this diſeaſe to keep the patient cool and quiet. The leaſt motion would fatigue him, and will be apt to occaſion wearineſs, and even faintings. His mind ought not only to be kept eaſy, but ſoothed and comforted. Nothing is more hurtful in low fevers of this kind than preſenting to the patient's imagination gloomy or frightful ideas. Theſe of themſelves often occaſion nervous fevers, and it is not to be doubted but they will likewiſe aggravate them.

The patient muſt not be kept too low. His ſtrength and ſpirits ought to be ſupported by nouriſhing diet, and generous cordials. For this purpoſe his gruel, panada, or whatever food he takes, muſt be mixed with wine according as the ſymptoms may require. Pretty ſtrong wine-whey, or ſmall negus, ſharpened with the juice of orange or lemon, will be proper for his ordinary drink. Muſtard-whey is likewiſe a very proper drink in this fever, and may be rendered an excellent cordial medicine by the addition of a proper quantity of white-wine*.

Wine in this diſeaſe, when genuine, is often almoſt the only medicine that is neceſſary. Good wine poſſeſſes all the virtues of the cordial medicines, while it is free from many of their bad qualities. I ſay good wine, for however common this article of luxury is now become, it is too ſeldom to be ob-

* See Appendix, *Muſtard-whey*.

tained

tained genuine, eſpecially by the poor, who are obliged to purchaſe it in ſmall quantities.

I have often ſeen patients in low nervous fevers where the pulſe could hardly be felt, with a conſtant delirium, coldneſs of the extremities, and almoſt every other mortal ſymptom, recover by uſing in whey, gruel, and negus, a bottle or two of ſtrong wine every day. Good old ſound Madeira, or Sherry, are the beſt, and may be made into negus, or given alone, as circumſtances require.

In a word, the great aim in this diſeaſe is to ſupport the patient's ſtrength, by giving him frequently ſmall quantities of the above, or other drinks of a warm and cordial nature. He is not, however, to be over-heated, either with liquor or clothes; and his food ought to be light, and given in ſmall quantities.

MEDICINE.—Where a nauſea, load, and ſickneſs at ſtomach, prevail at the beginning of the fever, it will be neceſſary to give the patient a gentle vomit. Fifteen or twenty grains of ipecacuanha in fine powder, or a few ſpoonfuls of the vomiting julep *, will generally anſwer this purpoſe very well. This may be repeated any time before the third or fourth day, if the above ſymptoms continue. Vomits not only clean the ſtomach, but, by the general ſhock which they give, promote the perſpiration, and have many other excellent effects in ſlow fevers, where there are no ſigns of inflammation.

Such as dare not venture upon a vomit, may clean the bowels by a ſmall doſe of Turkey rhubarb, or an infuſion of ſenna and manna.

In all fevers, the great point is to regulate the ſymptoms, ſo as to prevent them from going to either extreme. Thus, in fevers of the inflammatory

* See Appendix, *Vomiting Julep.*

kind, where the force of the circulation is too great, and the fibres too rigid, bleeding and other evacuations are neceſſary. But in nervous fevers, where nature flags, where the ſolids are relaxed, the lancet muſt be ſpared, and wine, with other cordials, plentifully adminiſtered.

Though bleeding is often improper in this diſeaſe, yet bliſtering is highly neceſſary. Bliſtering-plaſters may be applied at all times of the fever with great advantage. If the patient is delirious, he ought to be bliſtered on the neck or head, and it will be the ſafeſt courſe, when the inſenſibility continues, as ſoon as the diſcharge occaſioned by one bliſtering-plaſter abates, to apply another to ſome other part of the body, and by that means keep up a continual ſucceſſion of them, till he be out of danger.

I have been more ſenſible of the advantage of bliſtering in this than in any other diſeaſe. Bliſtering-plaſters not only ſtimulate the ſolids to action, but likewiſe occaſion a continual diſcharge, which may, in ſome meaſure, ſupply the want of critical evacuations, which ſeldom happen in this kind of fever. They are moſt proper, however, either towards the beginning, or after ſome degree of ſtupor has come on, in which laſt caſe it will always be proper to bliſter the head.

If the patient is coſtive through the courſe of the diſeaſe, it will be neceſſary to procure a ſtool, by giving him every other day a clyſter of milk and water, with a little ſugar; to which may be added, a ſpoonful of common ſalt, if the above does not operate.

Should a violent looſeneſs come on, it may be checked by ſmall quantities of laudanum, or giving the patient for his ordinary drink the white decoction*.

* See Appendix, *White decoction.*

A mili-

A miliary eruption ſometimes breaks out about the ninth or tenth day. As eruptions are often critical, great care ſhould be taken not to retard Nature's operation in this particular. The eruption ought neither to be checked by evacuations, nor puſhed out by a hot regimen; but the patient ſhould be ſupported by gentle cordials, as wine-whey, ſmall negus, ſago-gruel with a little wine in it, and ſuch like. He ought not to be kept too warm; yet a kindly breathing ſweat ſhould by no means be checked.

Though bliſtering and the uſe of cordial liquors are the chief things to be depended on in this kind of fever; yet, for thoſe who may chuſe to uſe them, we ſhall mention one or two of the forms of medicine which are commonly preſcribed in it; centaury and ſnake-root tea, volatile boluſſes.

In deſperate caſes, where the hiccup and ſtarting of the tendons have already come on, we have ſometimes ſeen extraordinary effects from large doſes of muſk frequently repeated. Muſk is doubtleſs an antiſpaſmodic, and may be given to the quantity of a ſcruple three or four times a-day, or oftener, if neceſſary. Sometimes it may be proper to add to the muſk a few grains of camphire, and ſalt of hartſhorn, as theſe tend to promote perſpiration and the diſcharge of urine. Thus fifteen grains of muſk, with three grains of camphire, and ſix grains of ſalt of hartſhorn, may be made into a bolus with a little ſyrup, and given as above.

If the fever ſhould happen to intermit, which it frequently does towards the decline, or if the patient's ſtrength ſhould be waſted with colliquative ſweats, &c. it will be neceſſary to give him the Peruvian bark. Half a drachm, or a whole drachm, if the ſtomach will bear it, of the bark in fine powder, may be given four or five times a-day in a

glaſs of red Port or claret. Should the bark in ſubſtance not ſit eaſily on the ſtomach, an ounce of it in powder may be infuſed in a bottle of Liſbon or Rheniſh wine for two or three days, afterwards it may be ſtrained, and a glaſs of it taken frequently.*

Some give the bark in this and other fevers, where there are no ſymptoms of inflammation, without any regard to the remiſſion or intermiſſion of the fever. How far future obſervations may tend to eſtabliſh this practice, we will not pretend to ſay; but we have reaſon to believe that the bark is a very univerſal febrifuge, and that it may be adminiſtered with advantage in moſt fevers where bleeding is not neceſſary, or where there are no ſymptoms of topical inflammation.

* The bark may likewiſe be very properly adminiſtered, along with other cordials, in the following manner: Take an ounce of Peruvian bark, orange-peel half an ounce, Virginian ſnake-root two drachms. Let all of them be powdered, and infuſed in a pint of the beſt brandy for three or four days. Afterwards the liquor may be ſtrained, and two tea-ſpoonfuls of it given three or four times a-day in a glaſs of a ſmall wine or wine and water.

CHAP.

CHAP. XX.

Of the Malignant, Putrid, or Spotted Fever.

THIS may be called the *peſtilential fever* of Europe, as in many of its ſymptions it bears a great reſemblance to that dreadful diſeaſe, the plague. Perſons of a lax habit, a melancholy diſpoſition, and thoſe whoſe vigour has been waſted by long faſting, watching, hard labour, exceſſive venery, frequent ſalivations, &c. are moſt liable to it.

CAUSES.—This fever is occaſioned by foul air, from a number of people being confined in a narrow place, not properly ventilated; from putrid animal and vegetable effluvia, &c. Hence it prevails in camps, jails, hoſpitals, and infirmaries, eſpecially where ſuch places are too much crowded, and cleanlineſs is neglected.

Theſe fevers often ſucceed great inundations in low and marſhy countries, eſpecially when theſe are preceded or followed by a hot and ſultry ſeaſon.

Living too much upon animal food, without a proper mixture of vegetables, or eating fiſh or fleſh that has been kept too long, are likewiſe apt to occaſion this kind of fever. Hence ſailors on long voyages, and the inhabitants of beſieged cities, are very often viſited with putrid fevers.

Corn that has been greatly damaged by rainy ſeaſons, or long keeping, and water which has become putrid by ſtagnation, &c. may likewiſe occaſion this fever.

Dead carcaſes tainting the air, eſpecially in hot ſeaſons, are very apt to occaſion putrid diſeaſes. Hence this kind of fever often prevails in countries which are the ſcenes of war and bloodſhed. This ſhews the propriety of removing burying-grounds, ſlaughter-houſes, &c. to a proper diſtance from great towns.

Want of cleanlineſs is a very general cauſe of putrid fevers. Hence they prevail amongſt the poor inhabitants of large towns, who breathe a confined unwholeſome air, and neglect cleanlineſs. Such mechanics as carry on dirty employments, and are conſtantly confined within doors, are likewiſe very liable to this diſeaſe.

We ſhall only add, that putrid, malignant, or ſpotted fevers, are highly infectious, and are therefore often communicated by contagion.

SYMPTOMS.—The malignant fever is generally preceded by a remarkable weakneſs, or loſs of ſtrength, without any apparent cauſe. This is ſometimes ſo great, that the patient can ſcarcely walk, or even ſit upright, without being in danger of fainting away. His mind too is greatly dejected; he ſighs, and is full of dreadful apprehenſions.

There is a nauſea, and ſometimes a vomiting of bile; a violent pain of the head, with a ſtrong pulſation or throbbing of the temporal arteries; the eyes often appear red and inflamed, with a pain at the bottom of the orbit; there is a noiſe in the ears, the breathing is laborious, and often interrupted with a ſigh; the patient complains of a pain about the region of the ſtomach, and in his back and loins; his tongue is at firſt white, but afterwards it appears black and chapped; and his teeth are covered with a black cruſt. He ſometimes paſſes worms both upwards and downwards, is affected with tremors or ſhaking, and often becomes delirious.

If

If blood is let, it appears diſſolved, or with a very ſmall degree of coheſion, and ſoon becomes putrid; the ſtools ſmell extremely fœtid, and are ſometimes of a greeniſh, black, or reddiſh caſt. Spots of a pale purple, dun, or black colour, often appear upon the ſkin, and ſometimes there are violent hæmorrhages, or diſcharges of blood from the mouth, eyes, noſe, &c.

It ſometimes happens, that the inflammatory, nervous, and putrid ſymptoms are ſo blended together, as to render it very difficult to determine to which claſs the fever belongs. In this caſe the greateſt caution and ſkill are requiſite. Attention muſt be paid to thoſe ſymptoms which are moſt prevalent, and both the regimen and medicines muſt be adapted to them*.

Inflammatory and nervous fevers may be converted into malignant and putrid, by too hot a regimen, or improper medicines.

The duration of putrid fevers is extremely uncertain; ſometimes they terminate between the ſeventh and fourteenth day, and at other times they are prolonged for five or ſix weeks. Their duration depends greatly upon the conſtitution of the patient, and the manner of treating the diſeaſe.

The moſt favourable ſymptoms are, a gentle looſeneſs after the fourth or fifth day, with a warm mild ſweat. Theſe, when continued for a conſiderable time, often carry off the fever, and ſhould never be imprudently ſtopped. Small miliary puſtules appearing between the petechiæ, or purple ſpots, are likewiſe favourable, as alſo hot ſcabby eruptions about the mouth and noſe. It is a good ſign when

* After all that has been ſaid upon this ſubject, it is not at all probable, that any fever can with propriety be called putrid. They are always inflammatory at firſt.

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the pulſe riſes upon the uſe of wine, or other cordials, and the nervous ſymptoms abate; deafneſs coming on towards the decline of the fever, is likewiſe often a favourable ſymptom *, as are abſceſſes in the groin or parotid glands.

Among the unfavourable ſymptoms may be reckoned an exceſſive looſeneſs, with a hard ſwelled belly; large black or livid blotches breaking out upon the ſkin; aphthæ in the mouth; cold clammy ſweats; blindneſs; change of the voice; a wild ſtaring of the eyes; difficulty of ſwallowing; inability to put out the tongue; and a conſtant inclination to uncover the breaſt. When the ſweat and ſaliva are tinged with blood, and the urine is black, or depoſites a black ſooty ſediment, the patient is in great danger. Starting of the tendons, and fœtid, ichorous, involuntary ſtools, attended with coldneſs of the extremities, are moſt generally the forerunners of death.

REGIMEN.—In the treatment of this diſeaſe, we ought to endeavour, as far as poſſible, to counteract the putrid tendency of the humors,† to ſupport the patient's ſtrength and ſpirits; and to aſſiſt nature in expelling the cauſe of this diſeaſe, by gently promoting perſpiration and the other evacuations.

It has been obſerved, that putrid fevers are often occaſioned by unwholeſome air, and of courſe they muſt be aggravated by it. Care ſhould therefore be taken to prevent the air from ſtagnating in the patient's chamber, to keep it cool, and renew it frequently.

* Deafneſs is not always a favourable ſymptom in this diſeaſe. Perhaps it is only ſo when occaſioned by abſceſſes formed within the ears.

† It is worth remarking here, that although much is ſaid by medical writers of a putridity of the *humors*, yet ſuch a ſtate of them ſeldom or never exiſts, unleſs indeed in the excretions.

quently, by opening the doors or windows of ſome adjacent apartment. The breath and perſpiration of perſons in perfect health, ſoon render the air of a ſmall apartment noxious; but this will ſooner happen from the perſpiration and breath of a perſon whoſe whole maſs of humors are in a diſeaſed ſtate.*

Beſides the frequent admiſſion of freſh air, we would recommend the uſe of vinegar, verjuice, juice of lemon, Seville orange, or any kind of vegetable acid that can be moſt readily obtained. Theſe ought frequently to be ſprinkled upon the floor, the bed, and every part of the room. They may alſo be evaporated by pouring them on an hot iron, or by boiling, &c. The freſh ſkins of lemons or oranges, ought likewiſe to be laid in different parts of the room, and they ſhould be frequently held to the patient's noſe. The uſe of acids in this manner, would not only prove very refreſhing to the patient, but would likewiſe tend to prevent the infection from ſpreading among thoſe who attend him. Strong ſcented herbs, as rue, tanſy, roſemary, wormwood, &c. may likewiſe be laid in different parts of the houſe, and ſmelled to by thoſe who go near the patient.

The patient muſt not only be kept cool, but likewiſe quiet and eaſy. The leaſt noiſe will affect his head, and the ſmalleſt fatigue will be apt to make him faint.

Few things are of greater importance in this diſeaſe than acids, which ought to be mixed with all the patient's food as well as drink. Orange, lemon, or vinegar-whey, are all very proper, and may be drank by turns, according to the patient's inclina-

* It is of the utmoſt importance to change the patient's linen, bed-clothes, and bed daily, and, when practicable, to remove him into another room. A matraſs is far preferable to a bed.

tion.

tion. They may be rendered cordial, by the addition of wine in ſuch quantity as the patient's ſtrength ſeems to require. When he is very low, he may drink negus, with only one half water, and ſharpened with the juice of orange or lemon. In ſome caſes, a glaſs of wine may now and then be allowed. The moſt proper wine is good Madeira, or Sherry; but if the body be open, red Port or claret is to be preferred.

When the body is bound, a tea-ſpoonful of the cream of tartar may be put into a cup of the patient's drink, as there is occaſion; or he may drink a decoction of tamarinds, which will both quench his thirſt, and promote a diſcharge by ſtool.

If camomile-tea will ſit upon his ſtomach, it is a very proper drink in this diſeaſe. It may be ſharpened by adding to every cup of the tea ten or fifteen drops of the elixir of vitriol.

The food muſt be light, as panada or oatmeal gruel, to which wine may be added, if the patient be weak and low; and they ought all to be ſharpened with the juice of orange, the jelly of currants, or the like. The patient ought likewiſe to eat freely of ripe fruits, as roaſted apples, currant or gooſeberry tarts, preſerved cherries, or plums, &c.

Taking a little food or drink frequently, not only ſupports the ſpirits, but counteracts the putrid tendency of the humors; for which reaſon, the patient ought frequently to be ſipping ſmall quantities of ſome of the acid liquors mentioned above, or any that may be more agreeable to his palate, or more readily obtained.

If he is delirious, his feet and hands ought to be frequently fomented with a ſtrong infuſion of camomile flowers. This, or an infuſion of the bark, to ſuch as can afford it, cannot fail to have a good effect. Fomentations of this kind not only relieve the

the head, by relaxing the veſſels in the extremities, but as their contents are abſorbed, and taken into the ſyſtem, they may aſſiſt in preventing the putreſcency of the humors.

MEDICINE.—If a vomit be given at the beginning of this fever, it will hardly fail to have a good effect; but if the fever has gone on for ſome days, and the ſymptoms are violent, vomits are not quite ſo ſafe. The body, however, is always to be kept open by clyſters, or laxative medicines.

Bleeding is neceſſary in putrid fevers to be regulated by the ſigns of inflammation.

Bliſtering plaſters are to be uſed, according to circumſtances. If the petechiæ or ſpots ſhould ſuddenly diſappear, the patient's pulſe ſink remarkably, and a delirium, with other bad ſymptoms come on, bliſtering may be permitted. In this caſe, the bliſtering plaſters are to be applied to the head, and inſide of the legs or thighs.

It is common, in the beginning of this fever, to give the emetic tartar in ſmall doſes, repeated every ſecond or third hour, till it ſhall either vomit, purge, or throw the patient into a ſweat. This practice is very proper, provided it be not puſhed ſo far as to weaken the patient.

A very ridiculous notion has long prevailed, of expelling the poiſonous matter of malignant diſeaſes, by trifling doſes of cordial or alexipharmic medicines. In conſequence of this notion, the contrayerva-root, the cordial confection, the mithridate, &c. have been extolled as infallible remedies. There is reaſon, however, to believe that theſe ſeldom do much good. *Where cordials are neceſſary, we know none that is ſuperior to good wine, and therefore again recommend it, both as the ſafeſt and beſt. Wine, with acids and antiſeptics, are the only cordials to be relied on, in the cure of malignant fevers.*

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In the moſt dangerous ſpecies of this diſeaſe, when it is attended with purple, livid or black ſpots, the Peruvian bark muſt be adminiſtered. I have ſeen it, when joined with acids, prove ſucceſsful, even in caſes where the petechiæ had the moſt threatening aſpect. But, to anſwer this purpoſe, it muſt not only be given in large doſes, but duly perſiſted in.

The beſt method of adminiſtering the bark is certainly in ſubſtance. An ounce of it in powder, may be mixed with half a pint of water, and the ſame quantity of red wine, and ſharpened with the elixir or the ſpirit of vitriol, which will both make it ſit eaſier on the ſtomach, and render it more benefical. Two or three ounces of the ſyrup of lemons may be added, and two table-ſpoonfuls of the mixture taken every two hours, or oftener, if the ſtomach is able to bear it.

Thoſe who cannot take the bark in ſubſtance, may infuſe it in wine, as recommended in the preceding diſeaſe.

If there be a violent looſeneſs, the bark muſt be boiled in red wine with a little cinnamon, and ſharpened with the elixir of vitriol, as above. Nothing can be more beneficial, in this kind of looſeneſs, than plenty of acids, and ſuch things as promote a gentle perſpiration.

If the patient be troubled with vomiting, a dram of the ſalt of wormwood, diſſolved in an ounce and a half of freſh lemon juice, and made into a draught with an ounce of ſimple cinnamon water, and a bit of ſugar, may be given and repeated as often as it is neceſſary. A table-ſpoonful of milk every half hour will often ſtop the vomiting.

If ſwellings of the glands appear, their ſuppuration is to be promoted by the application of poultices, ripening cataplaſms, &c. And as ſoon as there is any appearance of matter in them, they ought to be opened, and the poultices continued.

I have

I have known large ulcerous ſores break out in various parts of the body, in the decline of this fever, of a livid gangrenous appearance, and a moſt putrid cadaverous ſmell. Theſe gradually healed, and the patient recovered, by the plentiful uſe of Peruvian bark and wine, ſharpened with the ſpirits of vitriol.

For preventing putrid fevers we would recommend a ſtrict regard to cleanlineſs; a dry ſituation; ſufficient exerciſe in the open air; wholeſome food, and a moderate uſe of generous liquors. Infection ought above all things to be avoided. No conſtitution is proof againſt it. I have known perſons ſeized with a putrid fever, by only making a ſingle viſit to a patient in it; others have caught it by lodging for one night in a town where it prevailed; and ſome by attending the funerals of ſuch as died of it.*

When a putrid fever ſeizes any perſon in a family, the greateſt attention is neceſſary to prevent the diſeaſe from ſpreading. The ſick ought to be placed in a large apartment, as remote from the reſt of the family as poſſible; he ought likewiſe to be kept extremely clean, and ſhould have freſh air conſtantly let into his chamber; whatever comes from him ſhould be immediately removed, his linen ſhould be

* The late Sir John Pringle expreſſed a concern leſt theſe cautions ſhould prevent people from attending their friends or relations when afflicted with putrid fevers. I told him I meant only to diſcourage unneceſſary attendance, and mentioned a number of inſtances where putrid fevers had proved fatal to perſons, who were rather hurtful than beneficial to the ſick. This ſagacious phyſician agreed with me, in thinking that a good doctor and a careful nurſe were the only neceſſary attendants; and that all others, by their ſolicitude and ill-directed care, hurt the ſick.

If perſons attendant on the ſick would pay ſufficient attention to cleanlineſs, and not ſit near the patient unneceſſarily, they would ſeldom be infected.

frequently

frequently changed, and thoſe in health ought to avoid all unneceſſary communication with him.

Any one who is apprehenſive of having caught the infection, ought immediately to take a vomit, and to work it off by drinking plentifully of chamomile tea. This may be repeated in a day or two, if the apprehenſions ſtill continue, or any unfavourable ſymptoms appear.

The perſon ought likewiſe to take an infuſion of the bark and chamomile flowers for his ordinary drink; and before he goes to bed, he may drink a pint of pretty ſtrong negus, or a few glaſſes of generous wine. I have been frequently obliged to follow this courſe, when malignant fevers prevailed, and have likewiſe recommended it to others with conſtant ſucceſs.

People generally fly to bleeding and purging as antidotes againſt infection; but theſe are ſo far from ſecuring them, that by debilitating the body they increaſe the danger*.

Thoſe who wait upon the ſick in putrid fevers, ought always to have a piece of ſpunge or a handkerchief dipt in vinegar, or juice of lemon, to ſmell to while near the patient. They ought likewiſe to waſh their hands, and, if poſſible, to change their clothes, before they go into company.

* This may be true in many caſes, but where ſymptoms of inflammation occur, bleeding and purging are conſtantly the chief and only remedies.

CHAP. XXI.

Of the Miliary Fever.

THIS fever takes its name from the ſmall puſtules or bladders which appear on the ſkin, reſembling, in ſhape and ſize, the ſeeds of millet The puſtules are either red or white, and ſometimes both are mixed together.

The whole body is ſometimes covered with puſtules; but they are generally more numerous where the ſweat is moſt abundant, as on the breaſt, the back, &c. A gentle ſweat or moiſture on the ſkin, greatly promotes the eruption; but, when the ſkin is dry, the eruption is both more painful and dangerous.

Sometimes this is a primary diſeaſe; but it is much oftener only a ſymptom of ſome other malady, as the ſmall-pox, meaſles, ardent or nervous fever, &c. In all theſe caſes it is generally the effect of too hot a regimen or medicines.

The young and the aged are more liable to it than thoſe in the vigour and prime of life. It is likewiſe more incident to women than men, eſpecially the delicate and the indolent, who, neglecting exerciſe, keep continually within doors, and live upon weak watery diet. Such females are extremely liable to be ſeized with this diſeaſe in child-bed.

CAUSES.—The miliary fever is ſometimes occaſioned by violent paſſions or affections of the mind; as exceſſive grief, anxiety, thoughtfulneſs, &c. It may likewiſe be occaſioned by exceſſive watching, great evacuations, a weak watery diet, eating too freely of cold, crude, unripe fruits, as plumbs, cher-

ries, cucumbers, melons, &c. Impure waters, or provifions which have been ſpoiled by rainy ſeaſons, long keeping, &c. may likewiſe cauſe miliary fevers.

This diſeaſe in childbed-women is ſometimes the effect of great coſtiveneſs during pregnancy; it may likewiſe be occaſioned by their exceſſive uſe of green traſh, and other unwholeſome things, in which pregnant women are too apt to indulge. But its moſt general cauſe is indolence. Such women as lead a ſedentary life, eſpecially during pregnancy, and at the ſame time live groſsly, can hardly eſcape this diſeaſe in childbed. Hence it proves extremely fatal to women of faſhon, and likewiſe to thoſe women in manufacturing towns, who, in order to aſſiſt their huſbands, ſit cloſe within doors for almoſt the whole of their time. But amongſt women who are active and laborious, who live in the country, and take ſufficient exerciſe without doors, this diſeaſe is very little known.

SYMPTOMS.—When this is a primary diſeaſe, it makes its attack, like moſt other eruptive fevers, with a ſlight ſhivering, which is ſucceeded by heat, loſs of ſtrength, faintneſs, ſighing, a low quick pulſe, difficulty of breathing, with great anxiety and oppreſſion of the breaſt. The patient is reſtleſs, and ſometimes delirious; the tongue appears white, and the hands ſhake, with often a burning heat in the palms; and in childbed-women the milk generally goes away, and the other diſcharges ſtop.

The patient feels an itching or pricking pain under the ſkin, after which innumerable ſmall puſtules of a red or white colour begin to appear. Upon this the ſymptoms generally abate, the pulſe becomes more full and ſoft, the ſkin grows moiſter, and the ſweat, as the diſeaſe advances, begins to have a peculiar fœtid ſmell; the great load on the breaſt and oppreſſion of the ſpirits, generally go off, and the cuſtomary evacuations

cuations gradually return. About the ſixth or ſeventh day from the eruption, the puſtules begin to dry and fall off, which occaſions a very diſagreeable itching in the ſkin.

It is impoſſible to aſcertain the exact time when the puſtules will either appear or go off. They generally come out on the third or fourth day, when the eruption is critical; but, when ſymptomatical, they may appear at any time of the diſeaſe.

Sometimes the puſtules appear and vaniſh by turns. When that is the caſe, there is always danger; but when they go in all of a ſudden, and do not appear again, the danger is great.

In child-bed women the puſtules are commonly at firſt filled with clear water, afterwards they grow yellowiſh. Sometimes they are interſperſed with puſtules of a red colour. When theſe only appear the diſeaſe goes by the name of a *raſh*.

REGIMEN.—In all eruptive fevers, of whatever kind, the chief point is to prevent the ſudden diſappearing of the puſtules, and to promote their maturation. For this purpoſe the patient muſt be kept in ſuch a temperature, as neither to puſh out the eruption too faſt, nor to cauſe it to retreat prematurely. The diet and drink ought therefore to be in a moderate degree nouriſhing and cordial; but neither ſtrong nor heating. The patient's chamber ought neither to be kept too hot nor too cold; and he ſhould not be too much covered with clothes. Above all, the mind is to be kept eaſy and cheerful. Nothing ſo certainly makes an eruption go in as fear, or the apprehenſion of danger.

The food muſt be weak chicken-broth with bread, panada, ſago, or oatmeal-gruel, &c. to a gill of which may be added a ſpoonful or two of wine, as the patient's ſtrength requires, with a few grains of ſalt and a little ſugar. Good apples roaſted or boiled,

with other ripe fruits of an opening cooling nature, may be eaten.

The drink may be ſuited to the ſtate of the patient's ſtrength and ſpirits. If theſe be pretty high, the drink ought to be weak; as water-gruel, or balm tea.

When the patient's ſpirits are low, and the eruption does not riſe ſufficiently, his drink muſt be a little more generous; as wine-whey, or ſmall negus, ſharpened with the juice of orange or lemon, and made ſtronger or weaker as circumſtances may require.

Sometimes the miliary fever approaches towards a putrid nature, in which caſe the patient's ſtrength muſt be ſupported with generous cordials, joined with acids; and, if the degree of putreſcence be great, the Peruvian bark muſt be adminiſtered. If the head be much affected, the body muſt be kept open by emollient clyſters.

MEDICINE.—If the food and drink be properly regulated, there will be little occaſion for medicine in this diſeaſe. Should the eruption, however, not riſe, or the ſpirits flag, it will not only be neceſſary to ſupport the patient with cordials, but likewiſe to apply bliſtering-plaſters. The moſt proper cordial, in this caſe, is good wine, which may either be taken in the patient's food or drink; and if there be ſigns of putreſcency, the bark and acids may be mixed with wine, as directed in the putrid fever.

Some recommend bliſtering through the whole courſe of this diſeaſe; and where nature flags, and the eruption comes and goes, it may be neceſſary to keep up a ſtimulus, by a continual ſucceſſion of ſmall bliſtering-plaſters; but we would not recommend above one at a time. If, however, the pulſe ſhould ſink remarkably, the puſtules fall in, and the head be affected, it will be neceſſary to apply ſeveral bliſtering-

plaſters

plaſters to the moſt ſenſible parts, as the inſide of the legs and thighs, &c.

Bleeding is ſeldom neceſſary in this diſeaſe, and ſometimes it does much hurt, as it weakens the patient, and depreſſes his ſpirits. It is therefore *never* to be attempted, unleſs by the advice of a phyſician. We mention this, becauſe it has been cuſtomary to treat this diſeaſe in childbed-women by plentiful bleeding, and other evacuations, as if it were highly inflammatory*.

If the diſeaſe proves tedious, or the recovery ſlow, we would recommend the Peruvian bark, which may either be taken in ſubſtance, or infuſed in wine or water, as the patient inclines.

The miliary fever, like other eruptive diſeaſes, requires gentle purging when the fever is gone off, and the patient's ſtrength will permit.

To prevent this diſeaſe, a pure dry air, ſufficient exerciſe, and wholeſome food, are neceſſary. Pregnant women ſhould guard againſt coſtiveneſs, and take daily as much exerciſe as they can bear, avoiding all green fruits, and other unwholeſome things; and when in childbed they ought ſtrictly to obſerve a cool regimen.

* The only rule to go by here is the ſtate of the pulſe and violence of the ſymptoms. If theſe require bleeding, it cannot be improper.

CHAP. XXII.

Of the Remitting Fever.

THIS fever takes its name from a remiſſion of the ſymptoms, which happens ſometimes ſooner, and ſometimes later. The remiſſion is commonly preceded by a gentle ſweat, after which the patient ſeems greatly relieved, but in a few hours the fever returns. Theſe remiſſions return at very irregular periods, and are ſometimes of longer, ſometimes of ſhorter duration: the nearer, however, that the fever approaches to a regular intermittent, the danger is the leſs.

CAUSES.——Remitting fevers prevail in low marſhy countries, abounding with wood and ſtagnating water; but they prove moſt fatal in places where great heat and moiſture are combined, as in ſome parts of Africa, the province of Bengal in the Eaſt Indies, &c. where remitting fevers are generally very fatal. They are moſt frequent in cloſe calm weather, eſpecially after rainy ſeaſons, great inundations, or the like*. No age, ſex, or conſtitution, is exempted from the attack of this fever; but it chiefly ſeizes perſons of a relaxed habit, who live in low dirty habitations, breathe an impure ſtagnating air, take little exerciſe, and uſe unwholeſome diet.

SYMPTOMS.—The firſt ſymptoms of this fever are generally yawning, ſtretching, pain and giddineſs of the head and limbs, with alternate fits of heat and

* In America, they are often moſt prevalent after dry ſummers.

cold.

cold. Sometimes the patient is affected with a delirium at the very firſt attack. There is a pain, and ſometimes a ſwelling, about the region of the ſtomach, the tongue is white, the eyes and ſkin frequently appear yellow, and the patient is often afflicted with bilious vomitings. The pulſe is ſometimes a little hard, but ſeldom full, and the blood, when let, rarely ſhews any ſigns of inflammation. Some patients are exceedingly coſtive, and others are afflicted with a very troubleſome looſeneſs.

It is impoſſible to deſcribe all the ſymptoms of this diſeaſe, as they vary according to the ſituation, the ſeaſon of the year, and the conſtitution of the patient. They may likewiſe be greatly changed by the method of treatment, and by many other circumſtances too tedious to mention. Sometimes the bilious ſymptoms predominate, ſometimes the nervous, and at other times the putrid. Nor is it at all uncommon to find a ſucceſſion of each of theſe, or even a complication of them at the ſame time, in the ſame perſon. This fever in its common appearance, approaches neareſt to an intermittent with protracted paroxyſms.

REGIMEN.—The regimen muſt be adapted to the prevailing ſymptoms. When there are any ſigns of inflammation, the diet muſt be ſlender, and the drink weak and diluting. But when nervous ſymptoms occur, it will be neceſſary to ſupport the patient with food and liquors of a more generous nature, ſuch as are recommended in the immediately preceding fevers. We muſt, however, be very cautious in the uſe of things of a heating quality, as this fever is frequently changed into a *continual* one by an hot regimen, and improper medicines.

Whatever the ſymptoms are, the patient ought to be kept cool, quiet, and clean. His apartment, if poſſible, ſhould be large, and frequently ventilated

by letting in fresh air at the doors or windows. It ought likewise to be sprinkled with vinegar, juice of lemon, or the like. His linen, bed clothes, &c. should be frequently changed, and all his excrements immediately removed. Though these things have been recommended before, we think necessary to repeat them here, as they are of more importance to the sick than practitioners are apt to imagine*.

MEDICINE.—In order to cure this fever, we must endeavour to bring it to a regular intermission. This intention may be promoted by bleeding, if there be signs of inflammation; but, when that is not the case, bleeding ought not to be attempted, as it will weaken the patient, and prolong the disease. A vomit, however, will seldom be improper, and is generally of great service. Fifteen or twenty grains of ipecacuanha will answer this purpose very well; but, where it can be obtained, we would rather recommend a grain or two of tartar emetic, with five or six grains of ipecacuanha, to be made into a draught, and given for a vomit. This may be repeated once or twice, at proper intervals, if the sickness or nausea continues. Sometimes the nausea and vomiting are very troublesome. To remove this we bleed, if the pulse will bear it: if not, we apply blisters to the wrists or ancles.

* The ingenious Dr. Lind, of Edinburgh, in his inaugural dissertation concerning the putrid remitting fever of Bengal, has the following observation: "The patient's shirt, bed-"clothes, and bedding, ought frequently to be changed, and "exposed to the air, and all his excrements immediately re-"moved; the bed-chamber should be made pure and whole-"some, and frequently sprinkled with vinegar; in short every "attention should be paid to the patient. I can affirm, that a "physician who puts these in practice, will much oftener suc-"ceed than one who is even more skilful, but has not oppor-"tunity of using these means."

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The body ought to be kept open either by laxatives, as infuſions of ſenna and manna, ſmall doſes of cream of tartar, tamarinds, ſtewed prunes, or the like. The ſtronger purgatives, as calomel with jalap or rhubarb, are often neceſſary.

By this courſe the fever, in a few days, may generally be brought to a pretty regular or diſtinct intermiſſion; and if the intermiſſion is not complete, the ſaline julep, and bliſters to the wriſts, will moſt commonly produce one; in which caſe the Peruvian bark may be adminiſtered, and, if the ſtomach will bear it, it will ſeldom fail to perfect the cure. Wherever the bark is proper in fevers, the beſt method is to give as much as the ſtomach will bear, and continue it for one or two days in theſe doſes. It is needleſs here to repeat the methods of giving the bark, as we have already had occaſion frequently to mention them*.

The moſt likely way to avoid this fever, is to uſe a wholeſome and nouriſhing diet, to pay the moſt ſcrupulous attention to cleanlineſs, to keep the body warm, to take ſufficient exerciſe, and, in hot countries to avoid damp ſituations, night air, evening dews, and the like. In countries where it is endemical, the beſt preventive medicine which we can recommend, is the Peruvian bark, which may either be chewed, or infuſed in wine. Some recommend ſmoking tobacco, as very beneficial in marſhy countries, both for the prevention of this and intermitting fevers.

* It often happens that the ſtomach will not bear the bark, or perhaps the intermiſſion is not ſufficiently evident to give it. In ſuch caſes, a ſtrong tea, made of three fourths centuary and one fourth Virginia ſnake root, may be drank cold, a tea-cup full every hour.

CHAP.

CHAP. XXIII.

Of the Yellow Fever.

FEVERS have already been divided and ſubdivided into too many ſpecies; and, it is by no means from a wiſh to add to the number, that I inſert this chapter on, what is commonly called, the Yellow Fever. But, as there are ſome particulars in it, which ſeem to diſtinguiſh it from other fevers, although the diſcriminating ſhades between fevers are difficult to mark, and as the practice does certainly vary from that which is proper in others, to which it has a conſiderable reſemblance, I thought it might be uſeful to give a general account of it; more eſpecially, as there are but few, even of the phyſicians in the United States, who have had an opportunity of ſeeing this diſeaſe. To theſe I would particularly recommend a careful peruſal of Dr. Ruſh's book on the ſubject. I need hardly remark, that a more full account, than that which is here given, would be improper in the preſent work.

This fever is ſo called from a yellowneſs of the whole ſurface, which takes place, generally, from the ſecond and third to the ſixth and ſeventh days: it does not, however, occur in every inſtance.

It would ſeem, from the deſcriptions given by various authors, that this diſeaſe appears in different forms: ſome tell us of its appearance with ſuch ſymptoms as indicate great debility; others place it among the moſt violent inflammatory fevers; and it is certain, that this laſt was the form it generally aſſumed at Philadelphia, in the ſummer and autumn of 1793; although

although it ſuffered all the varieties produced by age, conſtitution, the ſtate of the atmoſphere, ſeaſon of the year, together with a number of other cauſes, ſuch as fear, grief, and deſpondency, which powerfully operated on the mind.

The young and plethoric were moſt ſubject to this diſeaſe, eſpecially at the beginning; but, during its progreſs, no age nor conſtitution were exempt from its attacks.

The danger was, in general, to be eſtimated by the violence of the attack, and age of the patient. It oftenest proved mortal from the third to the ſeventh day: a yellowneſs on the ſixth day, was not an unfavourable ſymptom.

CAUSES.—It remains a matter of diſpute, whether this diſeaſe is *always* imported, or whether it ever originates in this country. But, as it is agreed that it *may* be imported, the ſtricteſt vigilance ſhould be exerciſed at every port of the United States during, at leaſt, the months of July, Auguſt, and September, when this diſeaſe is known to prevail in the Weſt Indies and South America, and more eſpecially in a time of war there. Perhaps it would not be too ſtrict to ſubject every veſſel, coming from a ſickly or ſuſpected place, to a delay of at leaſt thirty days, in ſome port, at a convenient diſtance from any town.

Though it may not be an eaſy matter to determine the queſtion concerning the origin of the diſeaſe, it is by no means difficult to trace the cauſes of its ſpreading, when once amongſt us. Theſe are, dry, or moiſt and hot weather, dirty ſtreets or houſes, want of cleanlineſs in general, ſcarcity of good ripe fruit, intemperance, expoſure to the ſun or night air, fatigue, and fear.

And, as thoſe who ſuppoſe the diſeaſe to be always imported, regard the cauſes juſt mentioned to be the moſt

moſt probable ones of ſpreading the diſeaſe, and thoſe who ſuppoſe it to be an original diſorder, believe theſe to be the cauſes of the diſeaſe; it is, in either caſe, ſtrictly incumbent on the magiſtrates and citizens of every city to have the ſtreets kept perfectly clean, as well as to have them properly watered in dry ſeaſons.

SYMPTOMS.—Theſe are various; generally, however, after a previous laſſitude, the fever attacks with a chill more or leſs violent, followed by heat, ſevere pains in the head, back, and hips, oppreſſion at the breaſt, nauſea and vomiting, delirium, and watchfulneſs. The eyes are muddy, ſometimes ſparkling, ſometimes dull, the pupil dilated, the tongue is moiſt, the ſkin dry, the bowels generally very coſtive, the pulſe ſometimes oppreſſed and ſmall, generally hard, the fever has irregular exacerbations, but moſtly one in the evening or during the night; theſe are not followed by ſweat as in the remittent fever. The urine is in ſmall quantity and high coloured; eruptions ſometimes appear, particularly about the breaſt. In the moſt fatal caſes theſe ſymptoms continue with violence till the third or fourth day, when the pulſe fails, the ſkin turns yellow, hæmorrhagies from different parts come on, the vomiting increaſes, and, inſtead of bile and the contents of the ſtomach, a dark coloured liquor is thrown up, exactly reſembling coffee grounds diſſolved in water; this vomiting is often accompanied with a diſtreſſing noiſe and exceſſive reſtleſſneſs, the extremities become cold, the debility increaſes, and the patient is ſoon relieved by death from all his agonies.

When the diſeaſe terminates favourably, the ſymptoms of attack are much the ſame at firſt, and of different degrees of violence; by proper remedies they often abate on the firſt or ſecond day, and when they continue longer, the exacerbations are leſs violent,

violent, there is leſs vomiting, pain, &c. If the patient lives over the eighth or ninth day, there is more reaſon to hope a favourable iſſue.

REGIMEN.—The ſame regimen is proper here as in moſt fevers; but we muſt be particularly careful to place the ſick in as large and airy a room as poſſible, to change his linen and bed clothes every day, and to carry the cooling plan to its greateſt extent; the bed clothes ſhould be very light, the windows and doors ſhould be kept open conſtantly, linen cloths dipt in cold water ſhould be applied often to the forehead and hands, eſpecially where the pain in the head is violent. Every attention ſhould be paid to leſſen the exertions of the ſick; the fæces ſhould be removed immediately, and ſugar and ſaltpetre burnt in the chamber on coals—the floor may be often ſprinkled with vinegar.

The diet muſt be very light, and conſiſting chiefly of vegetables, indeed moſtly of drinks, ſuch as thin ſago-gruel, lemonade, toaſt and water, tamarind-water, molaſſes and water: a ſmall quantity of theſe muſt be taken at a time to prevent vomiting. This is a moſt troubleſome and dangerous ſymptom, and will often yield to a few table-ſpoonfuls of milk every hour, or a table-ſpoonful of good olive oil occaſionally.

The ſick perſon ſhould drink very freely of any of the mild diluents above mentioned if his ſtomach will bear it, and the drink muſt be offered to him.

MEDICINES.—The chief remedies in this diſeaſe are bleeding and purging: and were theſe timely adminiſtered and repeated in ſufficient quantity, with proper nurſing and accommodations there is no caſe of fever that would become leſs fatal than this terrible one.

The bleeding ſhould be performed on the firſt attack, and repeated two, three, or four times a-day, according

according to the violence of the ſymptoms, in the quantity of from eight and ten to fourteen and twenty ounces, until the ſymptoms are ſubdued, or in common language, until the fever is broken. Every new exacerbation of fever calls for another bleeding, and this may be repeated commonly until the ſeventh and eighth day if neceſſary, or longer if there is any local determination to the head, breaſt, or bowels. The pulſe will direct us greatly here; we are not always to look for the ſtrong, hard pulſe, it is often a ſmall, tenſe, or, as it may be ſtiled, *chorded* pulſe, which requires bleeding; where there is ſuch a pulſe we are not to be reſtrained by hæmorrhagies from the uſe of the lancet. The blood drawn firſt appears of a ſcarlet colour, without much ſeparation; it will afterwards generally put on the appearance of blood in other inflammatory diſorders, or what is commonly called *buffy* blood.

Purging is alſo abſolutely neceſſary. As the coſtiveneſs is obſtinate we are obliged to uſe ſuch cathartics as will overcome it. Nothing has been found more effectual for this purpoſe than calomel, and as it is ſlow, though ſure in its effects, we add ſome jalap or rhubarb to quicken its operation. From eight to twelve grains of calomel with the ſame, or rather a larger, quantity of jalap or rhubarb may be given every four or ſix hours until they operate. It is, however, often neceſſary alſo to give ſeveral purgative glyſters before the bowels can be opened.

After ſix or eight large dark coloured or black ſtools have been procured, we may give, perhaps, a ſingle doſe of this medicine daily, and when the ſymptoms abate, any other purgative may be uſed, as caſtor-oil, Glauber ſalts, &c. and ſometimes it is neceſſary, eſpecially after the diſeaſe has continued for ſome days, and the coſtiveneſs remains obſtinate,

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to combine the calomel with aloes or gamboge, in the form of pills, two of which, containing equal parts of each, may be given every three or four hours until they operate.

Conſiderable advantages ariſe from giving a few grains of calomel daily until the diſeaſe is ſubdued. It will often vomit as well as purge when firſt adminiſtered. It will bring on perſpiration, and it ſeems to increaſe the ſecretion and excretion of the bile, which appears to be deficient in this diſeaſe.

The fears which ſome entertain reſpecting the rough and inflammatory nature of this mercurial purge are totally groundleſs. Indeed, when we conſider that it is the cathartic almoſt univerſally employed in the diſeaſes of children, we ſurely cannot ſuppoſe it to be too heating in thoſe of adults.

The diſeaſe has ſometimes been ſuddenly reſolved by a general perſpiration. It will not, however, be ſafe to loſe time by attempting to procure this evacuation, more eſpecially as the means made uſe of to bring it on, would increaſe the inflammatory ſtate of the ſyſtem, if they failed of producing their deſired effect.

Having ſaid thus much of bleeding and purging, little need be added concerning any other remedies, as the whole cure depends on the uſe of theſe and of a proper regimen. It ſometimes happens, in the advanced ſtage of this diſeaſe, when bleeding is no longer proper, that pain of any particular part, coma, vomiting, or a continuance of fever, require the application of bliſters. In this ſtate only, laudanum may be of ſervice, eſpecially if there is any delirium. Sinapiſms to the ancles may be uſed if there is much ſtupor, as well as wine and other cordials; but theſe are only admiſſible in that ſtage of the diſeaſe when the pulſe is too weak to bear bleeding, and there is no appearance of fever.

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The efficacy of the above remedies depends upon their being *early* applied.

To *prevent* infection, the bowels ſhould be kept open by gentle laxatives; a temperate diet, conſiſting of broths, milk, vegetables, and ripe fruits of all kinds ſhould be uſed, and the exciting cauſes of unuſual heat, cold, and fatigue, ſhould be carefully avoided.

During the convaleſcence, light food, ripe fruit, beer and water, wine and water, the elixir of vitriol, and centaury-tea, may be uſed; and, when able, the patient ſhould uſe exerciſe in a carriage. But there is great danger of a relapſe, and much caution is neceſſary not to be expoſed to fatigue, the rays of the ſun, or night air.

It does not appear that this diſeaſe is communicable in the country, and we are told by Dr. Lining of Charleſton, where it has often prevailed, that no perſon can have it twice, though this is doubted. The black people, and perſons from the Weſt Indies, are leſs ſubject to it than others.

The treatment above recommended applies to the yellow fever as it appeared here in 1793 and 1794. If it ſhould hereafter appear in a different form, a different mode of practice may be requiſite. This, however, can eaſily be aſcertained by the ſymptoms. If they are inflammatory, they will undoubtedly require the ſame treatment, and at any rate cathartics cannot be improper.

CHAP. XXIV.

Of the Small-Pox.

THIS diſeaſe, which originally came from Arabia, is now become ſo general, that very few eſcape it at one time of life or another. It is a moſt contagious malady, and has for many years proved the ſcourge of Europe and America.

The ſmall-pox generally appear towards the ſpring. They are very frequent in ſummer, leſs ſo in autumn, and leaſt of all in winter. Children are moſt liable to this diſeaſe; and thoſe whoſe food is unwholeſome, who want proper exerciſe, or who uſe too much exerciſe, or drink diſtilled ſpirits, run the greateſt hazard from it.

The diſeaſe is diſtinguiſhed into the diſtinct and confluent kind; the latter of which is always attended with danger. There are likewiſe other diſtinctions of the ſmall-pox; as the cryſtalline, the bloody, &c.

CAUSES.—The ſmall-pox is commonly caught by infection. Since the diſeaſe was firſt brought into Europe, the infection has never been wholly extinguiſhed, nor have any proper methods, as far as I know, been taken for that purpoſe; ſo that now it has become in a manner conſtitutional. Children who have over-heated themſelves by running, wreſtling, &c. or adults after a debauch, are moſt apt to be ſeized with the ſmall-pox.

SYMPTOMS.——This diſeaſe is ſo generally known, that a minute deſcription of it is unneceſſary. Children commonly look a little dull, ſeem liſtleſs and drowſy for a few days before the more

violent ſymptoms of the ſmall-pox appear. They are likewiſe more inclined to drink than uſual, have little appetite for ſolid food, complain of wearineſs, and, upon taking exerciſe, are apt to ſweat. Theſe are ſucceeded by ſlight fits of cold and heat in turns, which, as the time of the eruption approaches, become more violent, and are accompanied with pains of the head and loins, vomiting, &c. The pulſe is quick, with a great heat of the ſkin, and reſtleſſneſs. When the patient drops aſleep, he wakes in a kind of horror, with a ſudden ſtart, which is a very common ſymptom of the approaching eruption; as are alſo convulſion-fits in young children. We may remark, however, that all the feveriſh ſymptoms of ſmall-pox are greatly relieved by walking about in the cool air, and often intermit.

About the third or fourth day from the time of ſickening, the ſmall-pox generally begin to appear; ſometimes indeed they appear ſooner. At firſt they very nearly reſemble flea-bites, and are ſooneſt diſcovered on the face, arms, and breaſt.

The moſt favourable ſymptoms are a ſlow eruption, and an abatement of the fever as ſoon as the puſtules appear. In a mild diſtinct kind of ſmall-pox the puſtules ſeldom appear before the third or fourth day from the time of ſickening, and they generally keep coming out gradually for ſeveral days after. Puſtules which are diſtinct, with a florid red baſis, and which fill with thick purulent matter, are the beſt.

A livid brown colour of the puſtules is an unfavourable ſymptom; as alſo when they are ſmall and flat, with black ſpecks in the middle. Puſtules which contain a thin watery ichor are very bad. A great number of pock on the face is always attended with danger. It is likewiſe a bad ſign when they run into one another.

It is a moſt unfavourable ſymptom when petechiæ, or purple, brown, or black ſpots are interſperſed among the puſtules. * Bloody ſtools or urine, with a ſwelled belly, are bad ſymptoms; as is alſo a continual ſtrangury. Pale urine, and a violent throbbing of the arteries of the neck, are ſigns of an approaching delirium, or of convulſion-fits. When the face does not ſwell, or falls before the pock come to maturity, it is very unfavourable. If the face begins to fall about the eleventh or twelfth day, and at the ſame time the hands and feet begin to ſwell, the patient generally does well; but when theſe do not ſucceed to each other, there is reaſon to apprehend danger. A continual ſpitting is now very favourable. When the tongue is covered with a brown cruſt, it is an unfavourable ſymptom. Grinding of the teeth, when it proceeds from an affection of the nervous ſyſtem, is a bad ſign; but ſometimes it is occaſioned by worms, or a diſordered ſtomach.

REGIMEN.—When convulſions appear, they give a dreadful alarm; immediately ſome noſtrum is applied, as if this were a primary diſeaſe; whereas it is only a ſymptom, and far from being an unfavourable one, of the approaching eruption. As the fits generally go off before the actual appearance of the ſmall-pox, it is attributed to the medicine, which, by this means, acquires a reputation without any merit. †

* And yet we often ſee a few purple pock ſcattered amongſt a very good diſtinct kind; here there is no danger.

† Convulſion-fits are no doubt very alarming, but their effects are often ſalutary. They ſeem to be one of the means made uſe of by Nature for breaking the force of a fever. I have always obſerved the fever abated, and ſometimes quite removed, after one or more convulſion-fits. This readily accounts for convulſions being a favourable ſymptom in the fever which precedes the eruption of the ſmall-pox, as every thing that mitigates this fever leſſens the eruption.

All that is, generally ſpeaking, neceſſary during the eruptive fever, is to keep the patient cool and eaſy, allowing him to drink freely of ſome weak diluting liquors; as balm-tea, barley-water, rennet-whey, gruels, &c. He ſhould not be confined to bed, but ſhould ſit up, and go into the cool air, as much as he is able. His food ought to be very light; and he ſhould be as little diſturbed with company as poſſible.

Much miſchief is done at this period by confining the patient too ſoon to his bed, and plying him with warm cordials or ſudorific medicines. Every thing that heats and inflames the blood, increaſes the fever, and puſhes out the puſtules prematurely. This has numberleſs ill effects. It not only increaſes the number of puſtules, but likewiſe tends to make them run into one another; and when they have been puſhed out with too great violence, they generally fall in before they come to maturity.

The good women, as ſoon as they ſee the ſmall-pox begin to appear, commonly ply their tender charge with cordials, ſaffron, and marigold-teas, wine, punch, and even brandy itſelf. All theſe are given with a view, as they term it, to throw out the eruption from the heart. This, like moſt other popular miſtakes, is the abuſe of a very juſt obſervation, *that when there is a moiſture on the ſkin, the pock riſe better, and the patient is eaſier, than when it continues dry and parched.* But that is no reaſon for forcing the patient into a ſweat. Sweating never relieves unleſs where it comes on ſpontaneouſly, or is the effect of drinking weak diluting liquors.

I have never ſeen a caſe in which convulſions, preceding the eruption, were fatal. If the fever is high, expoſure to cool air; if the feet are very cold, the warm bath; if the pulſe requires it, bleeding; alſo emetics and anodynes are amongſt the moſt uſeful remedies.

Children

Children are often ſo peeviſh, that they will not lie a-bed without a nurſe conſtantly by them. Indulging them in this, we have reaſon to believe, has many bad effects, both upon the nurſe and child. Even the natural heat of the nurſe cannot fail to augment the fever of the child; but if ſhe alſo proves feveriſh, which is often the caſe, the danger muſt be increaſed.

Laying ſeveral children who have the ſmall-pox in the ſame bed has many ill conſequences. They ought, if poſſible, never to be in the ſame chamber, as the perſpiration, the heat, the ſmell, &c. all tend to augment the fever, and to heighten the diſeaſe. It is common among the poor to ſee two or three children lying in the ſame bed, with ſuch a load of puſtules that even their ſkins ſtick together. One can hardly view a ſcene of this kind without being ſickened by the ſight. But how muſt the effluvia affect the poor patients, many of whom periſh by this uſage. *

A very dirty cuſtom prevails among the lower claſs of people, of allowing children in the ſmall-pox to keep on the ſame linen during the whole period of that loathſome diſeaſe. This is done leſt they ſhould catch cold; but it has many ill conſequences. The linen becomes hard by the moiſture which it abſorbs, and frets the tender ſkin. It likewiſe occa-

* This obſervation is likewiſe applicable to hoſpitals, workhouſes, &c. where numbers of children happen to have the ſmall-pox at the ſame time. I have ſeen above forty children cooped up in one apartment all the while they had this diſeaſe, without any of them being admitted to breathe the freſh air. No one can be at a loſs to ſee the impropriety of ſuch conduct. It ought to be a rule, not only in hoſpitals for the ſmall-pox, but likewiſe for other diſeaſes, that no patient ſhould be within ſight or hearing of another. This is a matter to which too little regard is paid.

ſions a bad ſmell, which is very pernicious, both to the patient and to thoſe about him; beſides, the filth which adheres to the linen being reſorbed, or taken up again into the body, greatly augments the diſeaſe.

A patient ſhould not be ſuffered to be dirty in an internal diſeaſe, far leſs in the ſmall-pox. Cutaneous diſorders are often occaſioned by naſtineſs alone, and are always increaſed by it. Were the patient's linen to be changed every day, it would greatly refreſh him. Care indeed is to be taken that the linen be thoroughly dry. It ought likewiſe to be put on when the patient is moſt cool, and ſhould be old and ſoft, without any ſtarch in it.

So ſtrong is the vulgar prejudice in this country, notwithſtanding all that has been ſaid againſt the hot regimen in the ſmall-pox, that numbers ſtill fall a ſacrifice to that error. I have ſeen poor women travelling in the depth of winter, and carrying their children along with them in the ſmall-pox, and have frequently obſerved others begging by the way-ſide, with infants in their arms covered with the puſtules; yet I could never learn that one of theſe children died by this ſort of treatment. This is certainly a ſufficient proof of the ſafety at leaſt, of expoſing patients in the ſmall-pox to the open air. There can be no reaſon however for expoſing them to public view. It is now very common in the environs of great towns to meet patients in the ſmall-pox on the public walks. This practice, however well it may ſuit the purpoſes of boaſting inoculators, is dangerous to the citizens, and contrary to the laws of humanity and ſound policy.

The food in this diſeaſe ought to be very light, and of a cooling nature, as panada, or bread boiled with equal quantities of milk and water, good apples roaſted or boiled with milk, and ſweetened with a little ſugar, or ſuch like.

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The drink may be toaſt and water, clear ſweet whey, barley-water, or thin gruel, &c. After the pock is full, butter-milk, being of an opening and cleanſing nature, is a very proper drink, or wine whey if the patient is low.

MEDICINE.—This diſeaſe is generally divided into four different periods, *viz.* the fever which precedes the eruption, the eruption itſelf, the ſuppuration, or maturation of the puſtules, and the ſecondary fever.

It has already been obſerved, that little more is neceſſary during the primary fever than to keep the patient cool and quiet, and allowing him to drink diluting liquors. Though this be generally the ſafeſt courſe that can be taken with infants, yet adults of a ſtrong conſtitution and plethoric habit generally require bleeding. When a full pulſe, a dry ſkin, and other ſymptoms of inflammation render this operation neceſſary, it ought to be performed; if the body is bound, purges muſt be given of Glauber's ſalts, or calomel joined with jalap or rhubarb. Many have ſuppoſed that the contagion of the ſmall-pox could be entirely deſtroyed by mercury. Though this is not proved, yet much good will ariſe from a free uſe of the mercurial powder, (ſee Appendix,) when a patient is ſuppoſed either to have received or to be liable to the contagion.

If there is a great nauſea or inclination to vomit, weak camomile-tea or lukewarm water may be drank, or fifteen grains of ipecacuanha may be given, in order to clean the ſtomach.

Though every method is to be taken during the primary fever, by a cool regimen, &c. to prevent too great an eruption; yet after the puſtules have made their appearance, our buſineſs is to promote the ſuppuration, by diluting drink, light food, and *if Nature ſeems to flag*, by generous cordials. When

a low, creeping pulſe, faintneſs, and great loſs of ſtrength, render cordials neceſſary, we would recommend good wine, which may be made into negus, with an equal quantity of water, and ſharpened with the juice of orange, the jelly of currants, or the like. Wine-whey, ſharpened as above, is likewiſe a proper drink in this caſe; great care however muſt be taken not to overheat the patient by any of theſe things. This, inſtead of promoting, would retard the eruption.

The riſing of the ſmall-pox is often prevented by the violence of the fever; in this caſe the cool regimen is ſtrictly to be obſerved. The patient's chamber muſt not only be kept cool, but he ought likewiſe frequently to be taken out of bed, and to be lightly covered with clothes while in it.

Exceſſive reſtleſſneſs often prevents the riſing and filling of the ſmall-pox. When this happens, gentle opiates are neceſſary. Theſe, however, ought always to be adminiſtered with a ſparing hand. To an infant, a tea-ſpoonful of the anodyne mixture * may be given every five or ſix hours till it has the deſired effect. An adult will require a table-ſpoonful in order to anſwer the ſame purpoſe.

If the patient be troubled with a ſtrangury, or ſuppreſſion of the urine, which often happens in the ſmall-pox, he ſhould be frequently taken out of bed, and, if he be able, ſhould walk acroſs the room with his feet bare. When he cannot do this, he may be frequently ſet on his knees in bed, and ſhould endeavour to paſs his urine as often as he can. When theſe do not ſucceed, a tea-ſpoonful of the ſweet ſpirits of nitre may be occaſionally mixed with his drink. Nothing more certainly relieves the patient, or is more beneficial in the ſmall-pox, than a plentiful diſcharge of urine.

* See Appendix, *Anodyne Mixture.*

If

If the mouth be foul, and the tongue dry and chapped, it ought to be frequently waſhed, and the throat gargled with water and honey, ſharpened with a little vinegar or currant-jelly.

During the riſing of the ſmall-pox, it frequently happens that the patient is ſeveral days without a ſtool. This not only tends to heat and inflame the blood, but the fæces, by lodging ſo long in the body, become acrid, and even putrid; from whence bad conſequences muſt enſue. It will therefore be proper, when the body is bound, to throw in an emollient clyſter every day, through the whole courſe of the diſeaſe. This will greatly cool and relieve the patient.

When petechiæ, or purple, black, or livid ſpots appear among the ſmall-pox, the Peruvian bark muſt immediately be adminiſtered in as large doſes as the patient's ſtomach can bear. For a child, two drachms of the bark in powder may be mixed in three ounces of common water, and one ounce of ſimple cinnamon water. This may be ſharpened with the ſpirits of vitriol, and a table-ſpoonful of it given every hour. If it be given to an adult in the ſame form, he may take at leaſt three or four table-ſpoons full every hour. This medicine ought not to be trifled with, but muſt be adminiſtered as frequently as the ſtomach can bear it; in which caſe it will often produce very happy effects. I have frequently ſeen the petechiæ diſappear, and the ſmall-pox, which had a very threatening aſpect, riſe and fill with laudable matter, by the uſe of the bark and acids.

The patient's drink ought likewiſe in this caſe to be generous, as wine or ſtrong negus acidulated with ſpirits of vitriol, vinegar, the juice of lemons, jelly of currants, or ſuch like. His food muſt conſiſt of roaſted apples, preſerved cherries, plums, and other fruits of an acid nature.

The

The bark and acids are not only neceſſary when the petechiæ or putrid ſymptoms appear, but likewiſe in the lymphatic or cryſtalline ſmall-pox, where the matter is thin, and not duly prepared. The Peruvian bark ſeems to poſſeſs a ſingular power of aſſiſting Nature in preparing laudable pus, or what is called good matter; conſequently it muſt be beneficial both in this and other diſeaſes, where the criſis depends on a ſuppuration. I have often obſerved where the ſmall-pox were flat, and the matter contained in them quite clear and tranſparent, and where at firſt they had the appearance of running into one another, that the Peruvian bark, acidulated as above, changed the colour and conſiſtence of the matter, and produced the moſt happy effects.

When the eruption ſubſides ſuddenly, or as it is termed, when the ſmall-pox *ſtrike in*, before they have arrived at maturity, the danger is very great. In this caſe bliſtering-plaſters muſt be immediately applied to the wriſts and ancles, and the patient ſupported with cordials.

Sometimes bleeding has a ſurpriſing effect in raiſing the puſtules after they have ſubſided; but it requires ſkill to know when this is proper, or to what length the patient can bear it. * Sharp cataplaſms however if the pulſe is weak may be applied to the feet and hands, as they tend to promote the ſwelling of theſe parts.

The moſt dangerous period of this diſeaſe is what we call the ſecondary fever. This generally comes on when the ſmall-pox begin to blacken, or turn on the face; and moſt of thoſe who die of the ſmall-pox are carried off by this fever.

* It is proper when the pulſe is tenſe, whether high or low, but never when the pulſe is weak or ſoft.

Nature

Nature often attempts, at the turn of the ſmall-pox, to relieve the patient by looſe ſtools, eſpecially in children. Her endeavours this way are by no means to be counteracted, but promoted, and the patient at the ſame time ſupported by food and drink of a nouriſhing and cordial nature.

If, at the approach of the ſecondary fever, the pulſe be very quick, hard, and ſtrong, the heat intenſe, and the breathing laborious, with other ſymptoms of an inflammation of the breaſt, the patient muſt immediately be bled. The quantity of blood to be let muſt be regulated by the patient's ſtrength, age, and the urgency of the ſymptoms.

But, in the ſecondary fever, if the patient be faintiſh, the puſtules become ſuddenly pale, and if there be great coldneſs of the extremities, bliſtering plaſters muſt be applied, and the patient muſt be ſupported with generous cordials. Wine is often given, in ſuch caſes, with amazing ſucceſs.

As the ſecondary fever is in great meaſure, if not wholly, owing to the puſtules, it would ſeem highly conſonant to reaſon that theſe, as ſoon as they come to maturity, ſhould be opened. This is every day practiſed in other phlegmons, which tend to ſuppuration; and there ſeems to be no cauſe why it ſhould be leſs proper here. On the contrary, we have reaſon to believe, that by this means the ſecondary fever might always be leſſened, and often wholly prevented.

The puſtules ſhould be opened when they begin to turn of a yellow colour. Very little art is neceſſary for this operation. They may either be opened with a lancet or a needle, and the matter abſorbed by a little dry lint. As the puſtules are generally firſt ripe on the face, it will be proper to begin with opening theſe, and the others in courſe as they become ripe. The puſtules generally fill again, a

ſecond or even a third time; for which cauſe, the operation muſt be repeated, or rather continued, as long as there is any conſiderable appearance of matter in the puſtules.

We have reaſon to believe that this operation, rational as it is, has been neglected from a piece of miſtaken tenderneſs in parents. They believe that it muſt give great pain to the poor child; and, therefore, would rather ſee it die, than have it thus tortured. This notion, however, is entirely without foundation. I have frequently opened the puſtules when the patient did not ſee me, without his being in the leaſt ſenſible of it; but, ſuppoſe it were attended with a little pain, that is nothing in compariſon to the advantages which ariſe from it.

Opening the puſtules not only prevents the reſorption of the matter into the blood, but likewiſe takes off the tenſion of the ſkin, and by that means greatly relieves the patient. It likewiſe tends to prevent the pitting which is a matter of no ſmall importance. Acrid matter, by lodging long in the puſtules, cannot fail to corrode the tender ſkin; by which many an handſome face becomes ſo deformed, as hardly to bear a reſemblance to the human figure. *

It is generally neceſſary, after the ſmall-pox are gone off, to purge the patient. If, however, the body has been open through the whole courſe of the diſeaſe, or if butter-milk and other things of an opening nature, have been drank freely after the height of the ſmall-pox, purging becomes leſs neceſſary; but it ought never wholly to be neglected.

* Though this operation can never do harm, yet it is only neceſſary when the patient has a great load of ſmall pox, or when the matter which they contain is of ſo thin and acrid a nature, that there is reaſon to apprehend bad conſequences from its being too quickly reſorbed, or taken up again into the maſs of circulating humors.

For

For very young children, an infuſion of ſenna and prunes, with a little rhubarb, may be ſweetened with coarſe ſugar, and given in ſmall quantities till it operates. Those who are farther advanced muſt take medicines of a ſharper nature. For example, a child of five or ſix years of age, may take eight or ten grains of fine rhubarb in powder, or the ſame quantity of jalap in powder. This may be wrought off with freſh broth or water gruel. For children further advanced, and adults, the doſe muſt be increaſed in proportion to the age and conſtitution.

When impoſthumes happen after the ſmall-pox, which is not ſeldom the caſe, they muſt be brought to ſuppuration as ſoon as poſſible, by means of ripening poultices, and opened, if they have not broke of their own accord. The Peruvian bark and a milk diet, will likewiſe be uſeful in this caſe.

When a cough, a difficulty of breathing, or other ſymptoms of a conſumption, ſucceed to the ſmall-pox, the patient muſt be ſent to a place where the air is good, and put upon a courſe of aſſes or cow's milk, with ſuch exerciſe as he can bear. For further directions in this caſe, ſee the article *Conſumptions*.

OF INOCULATION.

Though, perhaps, no diſeaſe, after it is formed, baffles the powers of medicine more effectually than the ſmall-pox, yet more may be done before-hand, to render this diſeaſe favourable, than any one we know, as almoſt all the danger from it may be prevented by inoculation. This ſalutary invention has been known in Europe above half a century; but, like moſt other uſeful diſcoveries, it has, till of late, made but ſlow progreſs. It muſt, however, be acknowledged, to the honour of this country, that inoculation

inoculation has met with a more favourable reception that among any of our neighbours. It is ſtill, however, far from being general, which we have reaſon to fear will be the caſe, as long as the practice continues in the hands of the faculty.

No diſcovery can be of general utility, while the practice of it is kept in the hands of a few. Had the inoculation of the ſmall-pox been introduced as a faſhion, and not as a medical diſcovery, or had it been practiſed by the ſame kind of operators here, as it is in thoſe countries from whence we learned it, it had long ago been univerſal. Hence it is, that the practice of inoculation never became in any meaſure general, till taken up by men not bred to phyſic. Theſe have not only rendered the practice more extenſive, but likewiſe more ſafe, and by acting under leſs reſtraint than the regular practitioners, have taught them that the patient's greateſt danger aroſe, not from the want of care, but from the exceſs of it.

They know very little of the matter, who impute the ſucceſs of modern inoculators to any ſuperior ſkill, either in preparing the patient or communicating the diſeaſe. Some of them, indeed, from a ſordid deſire of engroſſing the whole practice to themſelves, pretend to have extraordinary ſecrets or noſtrums for preparing perſons for inoculation, which never fail of ſucceſs. But this is only a pretence calculated to blind the ignorant and inattentive. Common ſenſe and prudence alone are ſufficient, both in the choice of the ſubject and management of the operation. Whoever is poſſeſſed of theſe, may perform this office for his children whenever he finds it convenient, provided they be in a good ſtate of health.

This ſentiment is not the reſult of theory, but of obſervation. Though few phyſicians have had more

opportunities of trying inoculation in all its different forms, ſo little appears to me to depend on thoſe, generally reckoned important circumſtances of preparing the body, communicating the infection by this or the other method, &c. that for ſeveral years paſt, I have perſuaded the parents or nurſes to perform the whole themſelves, and have found that method followed with equal ſucceſs, while it is free from many inconveniences that attend the other. *

The ſmall-pox may be communicated in a great variety of ways, with nearly the ſame degree of ſafety and ſucceſs. In Turkey, from whence we learned the practice, the women communicate the diſeaſe to children, by opening a bit of the ſkin with a needle, and putting into the wound a little matter taken from a ripe puſtule. On the coaſt of Barbary they paſs a thread, wet with the matter, through the ſkin between the thumb and fore-finger: and in ſome of the ſtates of Barbary, inoculation is performed by

* A critical ſituation, too often to be met with, firſt put me upon trying this method. A gentleman who had loſt all his children, except one ſon, by the natural ſmall-pox, was determined to have him inoculated. He told me his intention, and deſired I would perſuade the mother and grand-mother, &c. of its propriety. But that was impoſſible. They were not to be perſuaded, and either could not get the better of their fears, or were determined againſt conviction. It was always a point with me not to perform the operation without the conſent of the parties concerned. I therefore adviſed the father, after giving his ſon a doſe or two of rhubarb, to go to a patient who had the ſmall-pox of a good kind, to open two or three of the puſtules, taking up the matter with a little cotton, and as ſoon as he came home, to take his ſon apart, and give his arm a ſlight ſcratch with a pin, afterwards to rub the place well with the cotton, and take no further notice of it. All this he punctually performed; and, at the uſual period, the ſmall-pox made their appearance, which were of an exceeding good kind, and ſo mild as not to confine the boy an hour to his bed. None of the other relations knew but the diſeaſe had come in the natural way, till the boy was well.

rubbing

rubbing in the variolous matter between the thumb and fore-finger, or on other parts of the body. The practice of communicating the ſmall-pox, by rubbing the variolous matter upon the ſkin, has been long known in many parts of Aſia and Europe, as well as in Barbary, and has generally gone by the name of *buying the ſmall-pox*.

The preſent method of inoculating in Britain is, to make two or three ſlanting inciſions in the arm, ſo ſuperficial as not to pierce quite through the ſkin, with a lancet wet with freſh matter taken from a ripe puſtule; afterwards the wounds are cloſed up, and left without any dreſſing. *

We do not find that inoculation is at all conſidered as a medical operation in thoſe countries from whence we learned it. In Turkey it is performed by the women, and in the Eaſt Indies by the Brachmans or prieſts. In this country, the cuſtom is ſtill too much in its infancy; we make no doubt, however, but it will ſoon become ſo familiar, that parents will think no more of inoculating their children, than at preſent they do of giving them a purge.

No ſet of men have it ſo much in their power to render the practice of inoculation general as the clergy, the greateſt oppoſition to it ſtill ariſing from ſome ſcruples of conſcience. I would recommend it to them not only to endeavour to remove the religious objections which weak minds may have to this ſalutary practice, but to enjoin it as a duty, and to point out the danger of neglecting to make uſe of a mean which Providence has put in our power for

* The American method is, to open the ripe puſtules with a lancet, put the matter on a bit of glaſs or ivory, and when it is to be uſed, render it moiſt with a little cold water, wet the point of a lancet with it, and introduce it under the ſkin, ſo as juſt to ſee the blood: one puncture is as certain as a dozen.

ſaving the lives of our offſpring. Surely ſuch parents as wilfully neglect the means of ſaving their children's lives, are as guilty as thoſe who put them to death. I wiſh this matter were duly weighed. No one is more ready to make allowance for human weakneſs and religious prejudices, yet I cannot help recommending it, in the warmeſt manner, to parents, to conſider how great an injury they do their children, by neglecting to give them this diſeaſe in the early period of life.

The numerous advantages ariſing from the inoculation of the ſmall-pox have been pretty fully pointed out by the learned Dr. M'Kenzie, in his hiſtory of Health. * To thoſe mentioned by the Doctor we

* "Many and great," ſays this humane author, "are the "dangers attending the natural infection, from all which the "inoculation is quite ſecure. The natural infection may in- "vade weak or diſtempered bodies, by no means diſpoſed "for its kindly reception. It may attack them at a ſeaſon "of the year either violently hot, or intenſely cold. It may "lay hold upon people, unexpectedly. It may ſurpriſe us "ſoon after exceſſes committed in luxury, intemperance, or "lewdneſs. It may likewiſe ſeize on the innocent after in- "diſpenſable watchings, hard labour, or neceſſary journies. "And is it a trivial advantage, that all theſe unhappy cir- "cumſtances can be prevented by inoculation? By inocula- "tion numbers are ſaved from deformity as well as from "death. In the natural ſmall pox, how often are the fineſt "features, and the moſt beautiful complexions, miſerably diſ- "figured? Whereas inoculation rarely leaves any ugly marks "of ſcars, even where the number of puſtules on the face has "been very conſiderable, and the ſymptoms by no means fa- "vourable. And many other grievous complaints, that are "frequently ſubſequent to the natural ſort, ſeldom follow the "artificial. Does not inoculation alſo prevent thoſe inexpreſ- "ſible terrors that perpetually haraſs perſons who never had "this diſeaſe, inſomuch that when the ſmall-pox is epidemical, "entire villages are depopulated, markets ruined, and the face "of diſtreſs is ſpread over the whole country? From this terror "it ariſes, that juſtice is frequently poſtponed, or diſcouraged, "at ſeſſions or aſſizes where the ſmall-pox rages. Witneſſes

ſhall only add, that ſuch as have not had the ſmall-pox in the early period of life, are not only rendered unhappy, but likewiſe in a great meaſure unfit for ſuſtaining many of the moſt uſeful and important offices. Few people would chuſe even to hire a ſervant who had not had the ſmall-pox. How could a phyſician or a ſurgeon, who had never had the ſmall-pox himſelf, attend others under that malady? How deplorable is the ſituation of females, who arrive at mature age without having had the ſmall-pox! If an infant happen to be ſeized with the ſmall-pox upon the mother's breaſt, who has not had the diſeaſe herſelf, the ſcene muſt be diſtreſſing! If ſhe continue to ſuckle the child, it is at the peril of her own life; and if ſhe wean it, in all probability it will periſh. How often is the affectionate mother forced to leave her houſe, and abandon her children, at the very time when her care is moſt neceſſary? Yet ſhould maternal affection get the better of her fears, the conſequences would often prove fatal. I have known the tender mother and her ſuckling infant laid in the ſame grave, both untimely victims to this dreadful malady. But theſe are ſcenes too ſhocking even to mention. Let parents who run away with their children to avoid the ſmall-pox, or who refuſe to inoculate them in infancy, conſider to

" and juries dare not appear. Does not inoculation, in like " manner, prevent our ſailors from being ſeized with this " diſtemper on ſhipboard, where they muſt quickly ſpread " the infection among ſuch of the crew who never had it " before, and where they have ſcarce any chance to eſcape, " being half ſtifled with the cloſeneſs of their cabins, and " but very indifferently nurſed? Laſtly, with regard to the " ſoldiery, the miſeries attending theſe poor creatures when " attacked by the ſmall-pox on a march, are inconceivable, " without attendance, without lodgings, without any accom- " modation; ſo that one of three commonly periſhes."

what

what deplorable ſituations they may be reduced by this miſtaken tenderneſs!

As the ſmall-pox has now become an epidemical diſeaſe in moſt parts of the known world, no other choice remains but to render the malady as mild as poſſible. This is the only manner of extirpation now left in our power; the artificial method of communicating the diſeaſe, could it be rendered univerſal, would amount to nearly the ſame thing as rooting it out. It is a matter of ſmall conſequence, whether a diſeaſe be entirely extirpated, or rendered ſo mild as neither to deſtroy life nor hurt the conſtitution; but that this may be done by inoculation, does not now admit of a doubt. The numbers who die under inoculation hardly deſerve to be named. In the natural way, one in four or five generally dies: but by inoculation not one of a thouſand. Nay, ſome can boaſt of having inoculated ten thouſand without the loſs of a ſingle patient.

I have often wiſhed to ſee ſome plan eſtabliſhed for rendering this ſalutary practice univerſal; but am afraid I ſhall never be ſo happy. The difficulties indeed are many; yet the thing is by no means impracticable. The aim is great; no leſs than ſaving the lives of one-fourth part of mankind. What ought not to be attempted in order to accompliſh ſo deſirable an end?

The firſt ſtep towards rendering the practice univerſal, muſt be to remove the religious prejudices againſt it. This, as already obſerved, can be done by the clergy. They muſt not only recommend it as a duty to others, but likewiſe practice it on their own children. Example will ever have more influence than precept.

The next thing requiſite is to put it in the power of all. For this purpoſe we would recommend it to the Faculty to inoculate the children of the poor

gratis. It is hard that ſo uſeful a part of mankind ſhould by their poverty be excluded from ſuch a benefit.

Should this fail, it is ſurely in the power of any State to render the practice general, at leaſt as far as their dominion extends. We do not mean that it ought to be enforced by a law. The beſt way to promote it would be to employ a ſufficient number of operators at the public expence to inoculate the children of the poor. This would only be neceſſary till the practice became general; afterwards cuſtom, the ſtrongeſt of all laws, would oblige every individual to inoculate his children to prevent reflections.

It may be objected to this ſcheme, that the poor would refuſe to employ the inoculators; this difficulty is eaſily removed. A ſmall premium to enable mothers to attend their children while under the diſeaſe, would be a ſufficient inducement; beſides, the ſucceſs attending the operation would ſoon baniſh all objections to it. Even conſiderations of profit would induce the poor to embrace this plan. They often bring up their children to the age of ten or twelve, and when they come to be uſeful, they are ſnatched away by this malady, to the great loſs of their parents, and detriment of the public.

The Britiſh legiſlature has of late years ſhewn great attention to the preſervation of infant-lives, by ſupporting the foundling hoſpital, &c. But we will venture to ſay, if one-tenth part of the ſums laid out in ſupporting that inſtitution, had been beſtowed towards promoting the practice of inoculation of the ſmall-pox among the poor, that not only more uſeful lives had been ſaved, but the practice ere now rendered quite univerſal in this iſland. It is not to be imagined what effect example and a little money will have upon the poor; yet, if left to themſelves,

themſelves, they would go on for ever in the old way, without thinking of any improvement. We only mean this as a hint to the humane and public-ſpirited. Should ſuch a ſcheme be approved, a proper plan might eaſily be laid down for the execution of it.

But as public plans are very difficult to bring about, and often, by the ſelfiſh views and miſconduct of thoſe entruſted with the execution of them, fail of anſwering the noble purpoſes for which they were deſigned; we ſhall therefore point out ſome other method by which the benefits of inoculation may be extended to the poor.

There is no doubt but inoculators will daily become more numerous. We would therefore have every pariſh in Britain to allow them a ſmall annual ſalary for inoculating all the children of the pariſh at a proper age. This might be done at a very trifling expence, and it would enable every one to enjoy the benefit of this ſalutary invention.

Two things chiefly operate to prevent the progreſs of inoculation. The one is a wiſh to put the evil day as far off as poſſible. This is a principle in our nature; and as inoculation ſeems rather to be anticipating a future evil, mankind are therefore ſo averſe to it. But this objection is ſufficiently anſwered by the ſucceſs. Who in his ſenſes would not prefer a leſſer evil to-day to a greater to-morrow, provided they were equally certain?

The other obſtacle is the fear of reflections. This has very great weight with the bulk of mankind. Should the child die, they think the world would blame them. This they cannot bear. Here lies the difficulty; and till that be removed, inoculation will make but ſmall progreſs. Nothing, however, can remove it but cuſtom. Make the practice faſhionable, and all objections will ſoon vaniſh. It is faſhion that has, in a great degree, led the multitude ſince

the beginning of the world, and will lead them to the end. We muſt therefore call upon the more enlightened part of mankind to ſet a pattern to the reſt. Their example, though it may for ſome time meet with oppoſition, will at length prevail.

I am aware of the objection to this practice from the expence with which it may be attended: this is eaſily obviated. We do not mean that every pariſh ought to employ a Sutton or a Dimſdale as inoculators. Theſe have, by their ſucceſs, already recommended themſelves, and are beyond the vulgar reach; but have not others an equal chance to ſucceed? They certainly have. Let them make the ſame trial, and the difficulties will ſoon vaniſh. There is not a pariſh, and hardly a village in Britain, deſtitute of ſome perſon who can bleed. But this is a far more difficult operation, and requires both more ſkill and dexterity than inoculation.

The perſons to whom we would chiefly recommend the performance of this operation, are the clergy. Moſt of them know ſomething of medicine. Almoſt all of them bleed, and can order a purge, which are all the qualifications neceſſary for the practice of inoculation. The prieſts among the leſs enlightened Indians perform this office, and why ſhould a Chriſtian teacher think himſelf above it? Surely the bodies of men, as well as their ſouls, merit a part of the paſtor's care; at leaſt the greateſt Teacher who ever appeared among men thought ſo.

Should all other methods fail, we would recommend it to parents to perform the operation themſelves. Let them take any method of communicating the diſeaſe they pleaſe; provided the ſubjects be healthy, and of a proper age, they will ſeldom fail to ſucceed to their wiſh. I have known many inſtances even of mothers performing the operation, and never ſo much as heard of one bad conſequence.

A planter

A planter in one of the Weſt India iſlands is ſaid to have inoculated, with his own hand, in one year, three hundred of his ſlaves, who, notwithſtanding the warmth of the climate, and other unfavourable circumſtances, all did well. Common mechanics have often, to my knowledge, performed the operation with as good ſucceſs as phyſicians. We do not, however, mean to diſcourage thoſe who have it in their power, from employing people of ſkill to inoculate their children, and attend them while under the diſeaſe, but only to ſhew, that where ſuch cannot be had, the operation ought not, upon that account, to be neglected.

We have been the more full upon this ſubject becauſe the benefits of inoculation cannot be extended to ſociety by any other means than by making the practice general. While it is confined to a few, it muſt prove hurtful to the whole. By means of it the contagion is ſpread, and is communicated to many who might otherwiſe never have had the diſeaſe. Accordingly it is found that more die of the ſmall-pox now than before inoculation was introduced; and this important diſcovery, by which alone more lives might be ſaved than by all the endeavours of the Faculty, is in great meaſure loſt by its benefits not being extended to the whole community. *

The ſpring and autumn are uſually reckoned the moſt proper ſeaſons for inoculation, on account of the weather being then moſt temperate.

The moſt proper age for inoculation is between two and five. Many approve of inoculating on the breaſt, and where no circumſtances forbid this practice, I have no objection to it. Children, however,

* By a well-laid plan for extending inoculation, more lives might be ſaved at a ſmall expence, than are at preſent preſerved by all the hoſpitals in England, which coſt the public ſuch an amazing ſum.

are more liable to convulſions at this time than afterwards; beſides, the anxiety of the mother or nurſe, ſhould the child be in danger, would not fail to heighten it by ſpoiling the milk.

Children who have conſtitutional diſeaſes muſt nevertheleſs be inoculated. It will often mend the habit of body; but ought to be performed at a time when they are moſt healthy. Accidental diſeaſes ſhould always, if poſſible, be removed before inoculation.

It is generally thought neceſſary to regulate the diet for ſome time before the diſeaſe be communicated. In children, however, great alteration in diet is ſeldom neceſſary, their food being commonly of the moſt ſimple and wholeſome kind, as milk, water-pap, weak broths, bread, light pudding, mild roots, and white meats.

But children who have been accuſtomed to a hotter diet, who are of a groſs habit, or abound with bad humors, ought to be put upon a ſpare diet when they are inoculated. Their food ſhould be of a light cooling nature, and their drink whey, butter-milk, and ſuch like.

We would recommend no other medicinal preparation but two or three mild purges, which ought to be ſuited to the age and ſtrength of the patient. * The ſucceſs of inoculators does not depend on the preparation of their patients, but on their management of them while under the diſeaſe. Their conſtant care is to keep them cool, and their bodies gently open, by which means the fever is kept low, and the eruption greatly leſſened. The danger is ſeldom or never great when the puſtules are few; and their number is *generally* in proportion to the

* Many phyſicians, however, are in the practice of giving one of the mercurial powders (ſee Appendix) every morning after the inoculation, until the eruption.

fever

fever which precedes and attends the eruption. Hence the chief ſecret of inoculation conſiſts in regulating the eruptive fever, which generally may be kept ſufficiently low by the methods mentioned above.

The regimen during the diſeaſe is in all reſpects the ſame as under the natural ſmall-pox. The patient muſt be kept cool, his diet ſhould be light, and his drink weak and diluting, &c. Should any bad ſymptoms appear, which is ſeldom the caſe, they muſt be treated in the ſame way as directed in the natural ſmall-pox.

CHAP. XXV.

Of the Meaſles.

THE meaſles appeared in Europe about the ſame time with the ſmall-pox, and have a great affinity to that diſeaſe. They both came from the ſame quarter of the world, are both contagious, and do not attack the ſame perſon more than once. The meaſles are moſt common in the ſpring ſeaſon, and *generally* diſappear in ſummer. The diſeaſe itſelf, when properly managed, ſeldom proves fatal; but its conſequences are often very troubleſome.

CAUSE.—This diſeaſe, like the ſmall-pox, proceeds from infection, and is more or leſs dangerous according to the conſtitution of the patient, the ſeaſon of the year, the climate, &c.

SYMPTOMS.—The meaſles, like other feveriſh complaints, are preceded by alternate fits of heat and cold, with ſickneſs, and loſs of appetite. The tongue,

is

is white, but generally moiſt. There is a ſhort cough, a heavineſs of the head and eyes, drowſineſs, and a running at the noſe. Sometimes indeed the cough does not come before the eruption has appeared. There is an inflammation and heat in the eyes, accompanied with a defluxion of ſharp rheum, and great acuteneſs of ſenſation, ſo that they cannot bear the light without pain. The eye-lids frequently ſwell ſo as to occaſion blindneſs. The patient generally complains of his throat; and a vomiting or looſeneſs often precedes the eruption. The ſtools in children are commonly greeniſh; they complain of an itching of the ſkin, and are remarkably peeviſh. Bleeding at the noſe is common, both before and in the progreſs of the diſeaſe.

About the fourth day, ſmall ſpots, reſembling flea-bites, appear, firſt upon the face, then upon the breaſt, and afterwards on the extremities: theſe may be diſtinguiſhed from the ſmall-pox by their ſcarcely riſing above the ſkin. The fever, cough, and difficulty of breathing, inſtead of being removed by the eruption as in the ſmall-pox, are rather increaſed; but the vomiting generally ceaſes.

About the ſixth or ſeventh day from the time of ſickening, the meaſles begin to turn pale on the face, and afterwards upon the body; ſo that by the ninth day they entirely diſappear, leaving furfuraceous or branny appearances of the ſkin. The fever, however, and difficulty of breathing, often continue, eſpecially if the patient has been kept upon too hot a regimen. Petechiæ, or purple ſpots, may likewiſe be occaſioned by this error.

A violent looſeneſs ſometimes ſucceeds the meaſles; in which caſe the patient's life is in imminent danger.

Such as die of the meaſles generally expire about the ninth day from the infection, and are commonly carried

carried off by the peripneumony, or inflammation of the lungs.

The moſt favourable ſymptoms are a moderate looſeneſs, a moiſt ſkin, and a plentiful diſcharge of urine.

When the eruption ſuddenly ſtrikes in, and the patient is ſeized with a delirium, he is in the greateſt danger. If the meaſles turn too ſoon of a pale colour, it is an unfavourable ſymptom, as are alſo great weakneſs, vomiting, reſtleſſneſs, and difficulty of ſwallowing. Purple or black ſpots appearing among the meaſles are very unfavourable. When a continual cough, with hoarſeneſs, ſucceeds the diſeaſe, there is reaſon to ſuſpect an approaching conſumption of the lungs.

Our buſineſs in this diſeaſe is to aſſiſt Nature, by proper cordials, in throwing out the eruption, if her efforts be too languid; this, however, *is ſeldom the caſe:* but when they are too violent they muſt be reſtrained by evacuations, and cool diluting liquors, &c. We ought likewiſe to endeavour to appeaſe the moſt urgent ſymptoms, as the cough, reſtleſſneſs, and difficulty of breathing.

REGIMEN.—The cool regimen is neceſſary here as well as in the ſmall-pox. The food too muſt be light, and the drink diluting. Small-beer likewiſe, though a good drink in the ſmall-pox, is here improper. The moſt ſuitable liquors are decoctions of liquorice with marſhmallow roots, infuſions of flax-ſeed, or the flowers of elder, balm-tea, whey, barley-water, bran-tea, and ſuch like. Theſe, if the patient be coſtive, may be ſweetened with honey; or, if that ſhould diſagree with the ſtomach, a little brown-ſugar may occaſionally be added to them.

MEDICINE.—The meaſles being an inflammatory diſeaſe, without any critical diſcharge of matter, as in the ſmall-pox, bleeding is commonly neceſſary, eſpecially

eſpecially when the fever runs high, with difficulty of breathing, and great oppreſſion of the breaſt. But if the diſeaſe be of a mild kind, bleeding may be omitted.

The patient is often greatly relieved by vomiting. When there is a tendency this way, it ought to be promoted by drinking lukewarm water, or weak camomile-tea.

When the cough is very troubleſome, with dryneſs of the throat, and difficulty of breathing, the patient may hold his head over the ſteam of warm water, and draw the ſteam into his lungs.

He may likewiſe lick a little ſpermaceti and ſugar-candy pounded together; or take now and then a ſpoonful of the oil of ſweet almonds, with ſugar-candy diſſolved in it. Theſe will ſoften the throat, and relieve the tickling cough.

If at the turn of the diſeaſe the fever aſſumes new vigour, and there appears great danger of ſuffocation, the patient muſt be bled according to his pulſe, and bliſtering-plaſters applied, with a view to prevent the load from being thrown on the lungs, where if an inflammation ſhould fix itſelf, the patient's life will be in danger.

In caſe the meaſles ſhould ſuddenly diſappear, it will be neceſſary to purſue the ſame method which we have recommended when the ſmall-pox recede. The patient muſt be ſupported with wine and cordials. Bliſtering-plaſters muſt be applied to the legs and arms, and the body rubbed all over with warm flannels. Warm poultices may be likewiſe applied to the feet and palms of the hands.

When purple or black ſpots appear, the patient's drink ſhould be ſharpened with ſpirits of vitriol; and if theſe ſymptoms increaſe, the Peruvian bark muſt be adminiſtered in the ſame manner as directed in the ſmall-pox.

Opiates

Opiates are ſometimes neceſſary, but ſhould never be given except in caſes of extreme reſtleſſneſs, a violent looſeneſs, or when the cough is very troubleſome. For children, a tea-ſpoonful of aſthmatic elixir may be occaſionally given, according to the patient's age, or the violence of the ſymptoms. Whenever opiates are given in this diſeaſe, antimonial wine ſhould be added. One or two tea-ſpoonsful of the paregoric mixture (ſee Appendix) may be given every two or three hours, if neceſſary.

After the meaſles are gone off, the patient ought to be purged. This may be conducted in the ſame manner as directed in the ſmall-pox.

If a violent looſeneſs ſucceeds the meaſles, it may be checked by taking for ſome days a gentle doſe of rhubarb in the morning, and an opiate over night; but if theſe do not remove it, and the pulſe is hard, bleeding will ſeldom fail to have that effect.

Patients recovering after the meaſles ſhould be careful what they eat or drink. Their food for ſome time ought to be light, and in ſmall quantities, and their drink diluting, and rather of an opening nature, as butter-milk, whey, and ſuch like. They ought alſo to beware of expoſing themſelves too ſoon to the cold air, leaſt a ſuffocating catarrh, an aſthma, or a conſumption of the lungs, ſhould enſue.

Should a cough, with difficulty of breathing, and other ſymptoms of a conſumption, remain after the meaſles, ſmall quantities of blood may be frequently let at proper intervals, as the patient's ſtrength and conſtitution will permit. He ought likewiſe to drink milk, to remove to a free air, if in a large town, and to ride daily on horſeback. He muſt keep cloſe to a diet conſiſting of milk and vegetables; and laſtly, if theſe do not ſucceed, let him remove to a warmer climate. *

* Attempts have been made to communicate the meaſles, as well as the ſmall-pox, by inoculation, and we make no doubt but

OF THE SCARLET FEVER.

The ſcarlet fever is ſo called from the colour of the patient's ſkin, which appears, as if it were, tinged with red wine. It happens at any ſeaſon of the year, but is moſt common towards the end of ſummer; at which time it often ſeizes whole families; children and young perſons are moſt ſubject to it.

It begins, like other fevers, with coldneſs and ſhivering, without any violent ſickneſs. Afterwards the ſkin is covered with red ſpots, which are broader, more florid, and leſs uniform than the meaſles. They continue two or three days, and then diſappear; after which the cuticle or ſcarf-ſkin falls off.

There is ſeldom any occaſion for medicine in this diſeaſe. The patient ought, however, to keep within doors, to abſtain from fleſh, ſtrong liquors, and cordials, and to drink freely of cool diluting liquors. If the fever runs high, the body muſt be kept gently open by emollient clyſters, or ſmall doſes of flowers of ſulphur and cream of tartar.

but in time the practice may ſucceed. Dr. Home of Edinburgh ſays, he communicated the diſeaſe by the blood. Others have tried this method, and have not found it ſucceed. Some think the diſeaſe would be more certainly communicated, by rubbing the ſkin of a patient who has the meaſles with cotton, and afterwards applying the cotton to a wound, as in the ſmall-pox; while others recommend a bit of flannel, which had been applied to the patient's ſkin all the time of the diſeaſe, to be afterwards laid upon the arm or leg of the perſon, to whom the infection is to be communicated. There is no doubt but this diſeaſe, as well as the ſmall-pox, may be communicated various ways; the moſt probable, however, is either from cotton rubbed upon the ſkin, as mentioned above, or by introducing a little of the ſharp humor, which diſtils from the eyes of the patient into the blood. It is agreed on all hands, that ſuch patients as have been inoculated had the diſeaſe very mildly; we therefore wiſh the practice were more general, as the meaſles are often fatal.

Children

Children and young perſons are ſometimes ſeized at the beginning of this diſeaſe, with a kind of ſtupor and epileptic fits. In this caſe, the feet and legs ſhould be bathed in warm water, a large bliſtering-plaſter applied to the neck, and the patient bled, if the pulſe is ſtrong and hard.

The ſcarlet fever, however, is not always of ſo mild a nature. It is ſometimes attended with putrid or malignant ſymptoms, in which caſe it is always dangerous. In the malignant ſcarlet fever, the patient is not only affected with coldneſs and ſhivering, but with languor, ſickneſs, and great oppreſſion; to theſe ſucceed exceſſive heat, nauſea and vomiting, with a ſoreneſs of the throat; the pulſe is extremely quick, but ſmall and depreſſed; the breathing frequent and laborious; the ſkin hot, but not quite dry; the tongue moiſt, and covered with a whitiſh mucus; the tonſils inflamed and ulcerated. When the eruption appears, it brings no relief: on the contrary, the ſymptoms generally grow worſe, and freſh ones come on, as purging, delirium, &c. *

OF THE BILIOUS FEVER.

When a continual, remitting, or intermitting fever is accompanied with a frequent or copious evacuation of bile, either by vomit or ſtool, the fever is denominated bilious. The bilious fever generally makes its appearance about the end of ſummer, and ceaſes towards the approach of winter. It is moſt frequent and fatal in warm countries, eſpecially where the ſoil is marſhy, and when great rains are ſucceeded by ſultry heats. Perſons who work without doors,

* For the treatment of this malignant ſcarlet fever, as it is here called, ſee putrid ulcerous ſore-throat, as there is every reaſon to believe they are the ſame diſeaſes, differing only in the violence of the ſymptoms.

lie

lie in camps, or who are expoſed to the night air, are moſt liable to this kind of fever.

If there are ſymptoms of inflammation at the beginning of this fever, it will be neceſſary to bleed, and to put the patient upon the cool diluting regimen recommended in the inflammatory fever. The ſaline draught may likewiſe be frequently adminiſtered, and the patient's body kept open by clyſters or mild purgatives. But if the fever ſhould remit or intermit, bleeding will ſeldom be neceſſary. In this caſe, a vomit may be adminiſtered, and, if the body be bound, a gentle purge; after which the Peruvian bark will generally complete the cure.

In caſe of a violent looſeneſs, the patient muſt be ſupported with chicken-broth, jellies of hartſhorn, and the like; and he may uſe the *white decoction* for his ordinary drink. * If a bloody flux ſhould accompany this fever, it muſt be treated in the manner recommended under the article *Dyſentery*.

When there is a burning heat, and the patient does not ſweat, that evacuation may be promoted by giving him, three or four times a-day, a table-ſpoonful of Mindererus's ſpirit, † mixed in a cup of his ordinary drink.

If the bilious fever be attended with the nervous, malignant, or putrid ſymptoms, which is ſometimes the caſe, the patient muſt be treated in the ſame manner as directed under theſe diſeaſes.

After this fever, proper care is neceſſary to prevent a relapſe. For this purpoſe, the patient, eſpecially towards the end of autumn, ought to continue the uſe of the Peruvian bark, for ſome time after he is well. He ſhould likewiſe abſtain from all traſhy fruits, new liquors, and every kind of flatulent aliment.

* See Appendix, *White Decoction*.

† See Appendix, *Spirit of Mindererus*.

CHAP. XXVI.

Of the Eryſipelas, or St. Anthony's Fire.

THIS diſeaſe, which in ſome parts of Britain is called *the roſe*, attacks perſons at any period of life, but is moſt common between the age of thirty and forty. Perſons of a ſanguine or plethoric habit are moſt liable to it. It often attacks young people, and pregnant women; and ſuch as have once been afflicted with it are very liable to have it again. Sometimes it is a primary diſeaſe, and at other times only a ſymptom of ſome other malady. Every part of the body is liable to be attacked by an eryſipelas, but it moſt frequently ſeizes the legs or face, eſpecially the latter. It is moſt common in autumn, or when hot weather is ſucceeded by cold and wet.

CAUSES.—The eryſipelas may be occaſioned by violent paſſions or affections of the mind; as fear, anger, &c. When the body has been heated to a great degree, and is immediately expoſed to the cold air, ſo that the perſpiration is ſuddenly checked, an eryſipelas will often enſue*. It may alſo be occaſioned by drinking to exceſs, by continuing too long in a warm bath, by vegetable and mineral poiſons, or by

* The country people in many parts of Britain call this diſeaſe a *blaſt*, and imagine it proceeds from foul air, or ill wind, as they term it. The truth is, they often lie down to reſt them, when warm and fatigued, upon the damp ground, where they fall aſleep, and lie ſo long as to catch cold, which occaſions the eryſipelas. This diſeaſe may indeed proceed from other cauſes, but we may venture to ſay, that nine times out of ten it is occaſioned by cold caught after the body has been greatly heated or fatigued.

any thing that overheats the blood. If any of the natural evacuations be obſtructed, or in too ſmall quantity, it may cauſe an eryſipelas. The ſame effect will follow from the ſtoppage of artificial evacuations; as iſſues, ſetons, or the like.

SYMPTOMS.—The eryſipelas attacks with ſhivering, thirſt, loſs of ſtrength; pain in the head and back, heat, reſtleſſneſs, and a quick pulſe; to which may be added vomiting, and ſometimes a delirium. On the ſecond, third, or fourth day, the part ſwells, becomes red, and ſmall puſtules appear; at which time the fever generally abates.

When the eryſipelas ſeizes the foot, the parts contiguous ſwell, the ſkin ſhines; and, if the pain be violent, it will aſcend to the leg, and will not bear to be touched.

When it attacks the face, it ſwells, appears red, and the ſkin is often covered with ſmall puſtules, filled with clear water. One or both eyes are generally cloſed with the ſwelling; and there is a difficulty of breathing.

If the eryſipelas affects the breaſt, it ſwells and becomes exceedingly hard, with great pain, and may ſuppurate. There is ſometimes a violent pain in the arm-pit on the ſide affected, where an abſceſs is often formed.

If in a day or two the ſwelling ſubſides, the heat and pain abate, the colour of the part turns yellow, and the cuticle breaks and falls off in ſcales, the danger is over.

When the eryſipelas is large, deep, and affects a very ſenſible part of the body, the danger is great. If the red colour changes into a livid or black, it may end in a mortification. Sometimes the inflammation cannot be diſcuſſed, but comes to a ſuppuration; in which caſe, fiſtulas, a gangrene, or mortification, often enſue.

Such

Such as die of this diſeaſe are commonly carried off by the fever, which is attended with difficulty of breathing, and ſometimes with a delirium and great drowſineſs. They generally die about the ſeventh or eighth day.

REGIMEN.—In the eryſipelas the patient muſt neither be kept too hot nor too cold, as either of theſe extremes will tend to make it retreat, which is always to be guarded againſt. When the diſeaſe is mild, it will be ſufficient to keep the patient within doors, without confining him to his bed, and to promote the perſpiration by diluting liquors, &c.

The diet ought to be ſlender, and of a moderately cooling and moiſtening quality, as oatmeal-gruel, panada, chicken or barley-broth, with cooling herbs and fruits, &c. avoiding fleſh, fiſh, ſtrong drink, ſpices, pickles, and all other things that may heat and inflame the blood; the drink may be barley-water, an infuſion of elder flowers, common whey, and ſuch like.

But if the pulſe be low, and the ſpirits ſunk, the patient muſt be ſupported with negus, and other things of a cordial nature. His food may be ſago gruel, with a little wine, and nouriſhing broths taken in ſmall quantities, and often repeated. Great care however muſt be taken not to overheat him.

MEDICINE.—In this diſeaſe much miſchief is often done by medicine, eſpecially by external applications. People, when they ſee an inflammation, immediately think that ſomething ought to be applied to it. This indeed is neceſſary in large phlegmons; but in an eryſipelas the ſafer courſe is to apply nothing. All ointments, ſalves, and plaſters, being of a greaſy nature, tend rather to obſtruct and repel, than promote any diſcharge from the part. At the beginning of this diſeaſe it is neither ſafe to promote a ſuppuration, nor to repel the matter too quickly.

The eryſipelas in many reſpects reſembles the gout, and is to be treated with the greateſt caution. The inflamed parts ſhould be kept conſtantly powdered with rye-meal.

It is common to bleed in the eryſipelas; but this likewiſe requires caution. If, however, the fever be high, the pulſe hard and ſtrong, and the patient vigorous, it will be proper to bleed; but the quantity muſt be regulated by theſe circumſtances, and the operations repeated as the ſymptoms may require. If the patient has been accuſtomed to ſtrong liquors, and the diſeaſe attacks his head, bleeding is abſolutely neceſſary.

Bathing the feet and legs frequently in lukewarm water, when the diſeaſe attacks the face or brain, has an excellent effect. It tends to make a derivation from the head, and ſeldom fails to relieve the patient. When bathing proves ineffectual poultices, or ſharp ſinapiſms, may be applied to the ſoles of the feet, for the ſame purpoſe.

In caſes where bleeding is requiſite, it is likewiſe neceſſary to keep the body open. This may be effected by emollient clyſters, or ſmall doſes of nitre and rhubarb. Some indeed recommend very large doſes of nitre in the eryſipelas; but nitre ſeldom ſits eaſy on the ſtomach when taken in large doſes. It is, however, one of the beſt medicines when the fever and inflammation run high. Half a drachm of it, with four or five grains of rhubarb, may be taken in the patient's ordinary drink four times a-day.

When the eryſipelas leaves the extremities, and ſeizes the head, ſo as to occaſion a delirium or ſtupor, it is abſolutely neceſſary to open the body. If clyſters and mild purgatives fail to have this effect, ſtronger ones muſt be given. Bliſtering plaſters muſt likewiſe be applied to the neck, or behind the ears, and ſharp cataplaſms laid on the ſoles of the feet.

When

When the inflammation cannot be diſcuſſed, and the part has a tendency to ulcerate, it will then be proper to promote ſuppuration.

When the black, livid, or blue colour of the part ſhews a tendency to mortification, the Peruvian bark muſt be adminiſtered. It may be taken along with acids, as recommended in the ſmall-pox, or in any other form more agreeable to the patient. It muſt not, however, be trifled with, as the patient's life is at ſtake. A drachm may be given every two hours, if the ſymptoms be threatening, and cloths dipped in warm camphorated ſpirits of wine, or the tincture of myrrh and aloes, may be applied to the part, and frequently renewed. It may likewiſe be proper in this caſe to apply poultices of the bark, or to foment the part affected with a ſtrong decoction of it.

In what is commonly called the *ſcorbutic eryſipelas*, which continues for a conſiderable time, it will only be neceſſary to give gentle laxatives, and ſuch things as purify the blood, and promote the perſpiration. Thus, after the inflammation has been checked by opening medicines, the decoction of ſarſaparilla* may be drank; after which a courſe of bitters would be proper.

Such as are liable to frequent attacks of the eryſipelas ought carefully to guard againſt all violent paſſions; to abſtain from ſtrong liquors, and all fat, viſcid, and highly nouriſhing food. They ſhould likewiſe take ſufficient exerciſe, carefully avoiding the extremes of heat or cold. Their food ſhould conſiſt chiefly of milk, and ſuch fruits, herbs, and roots, as are of a cooling quality, and their drink ought to be ſmall-beer, whey, butter-milk, and ſuch like. They ſhould never ſuffer themſelves to be

* See Appendix, *Decoction of Sarſaparilla.*

long coſtive. If that cannot be prevented by ſuitable diet, it will be proper to take frequently a gentle doſe of rhubarb, cream of tartar, the lenitive electuary, or ſome other mild purgative.

CHAP. XXVII.

Of the Phrenitis, or Inflammation of the Brain.

THIS is ſometimes a primary diſeaſe, but oftener only a ſymptom of ſome other malady; as the inflammatory, eruptive, or ſpotted fever, &c. It is very common, however, as a primary diſeaſe in warm climates, and is moſt incident to perſons about the prime or vigour of life. The paſſionate, the ſtudious, and thoſe whoſe nervous ſyſtem is irritable in a high degree, are moſt liable to it.

CAUSES.—This diſeaſe is often occaſioned by night-watching, eſpecially when joined with hard ſtudy: it may likewiſe proceed from hard drinking, anger, grief, or anxiety. It is often occaſioned by the ſtoppage of uſual evacuations; as the bleeding piles in men, the cuſtomary diſcharges of women, &c. Such as imprudently expoſe themſelves to the heat of the ſun, eſpecially by ſleeping without doors in a hot ſeaſon, with their heads uncovered, are often ſuddenly ſeized with an inflammation of the brain, ſo as to awake quite delirious. When repellents are imprudently uſed in an eryſipelas, an inflammation of the brain is ſometimes the conſequence. It may likewiſe be occaſioned by external injuries, as blows or bruiſes upon the head, &c.

SYMP.

SYMPTOMS.——The ſymptoms which uſually precede a true inflammation of the brain, are, pain of the head, redneſs of the eyes, a dilated pupil, a violent fluſhing of the face, diſturbed ſleep, or a total want of it, great dryneſs of the ſkin, coſtiveneſs, a retention of urine, ſometimes a ſmall dropping of blood from the noſe, ſinging of the ears, and extreme ſenſibility of the nervous ſyſtem.

When the inflammation is formed, the ſymptoms in general are ſimilar to thoſe of the inflammatory fever. The pulſe indeed is often weak, irregular, and trembling; but ſometimes it is hard and contracted. When the brain itſelf is inflamed, the pulſe is always low; but when the inflammation only affects the integuments of the brain, *viz.* the dura and pia matter, it is hard. A remarkable quickneſs of hearing is a common ſymptom of this diſeaſe; but that ſeldom continues long. Another uſual ſymptom is a great throbbing or pulſation in the arteries of the neck and temples. The patient ſeldom complains of thirſt, and even refuſes drink. The mind chiefly runs upon ſuch objects as have before made a deep impreſſion on it; and ſometimes, from a ſullen ſilence, the patient becomes all of a ſudden quite outrageous.

A conſtant trembling and ſtarting of the tendons is an unfavourable ſymptom, as are alſo a ſuppreſſion of urine; a total want of ſleep; a conſtant ſpitting and a grinding of the teeth. When a phrenitis ſucceeds an inflammation of the lungs, of the inteſtines, or of the throat, &c. it is owing to a tranſlation of the diſeaſe from thoſe parts to the brain, and often proves fatal. This ſhews the neceſſity of proper evacuations, and the danger of repellents in all inflammatory diſeaſes.

The favourable ſymptoms are, a free perſpiration, a copious diſcharge of blood from the noſe, the bleeding piles, a plentiful diſcharge of urine, which

lets fall a copious ſediment. Sometimes the diſeaſe is carried off by a looſeneſs, and in women by an exceſſive flow of the *menſes*.

As this diſeaſe often proves fatal in a few days, it requires the moſt ſpeedy applications. When it is prolonged, or improperly treated, it ſometimes ends in madneſs, or a kind of ſtupidity, which may continue for life.

In the cure, two things are chiefly to be attended to, *viz.* to leſſen the quantity of blood in the brain, and to retard the circulation towards the head.

REGIMEN.—The patient ought to be kept very quiet. Company, noiſe, and every thing that affects the ſenſes, or diſturbs the imagination, increaſes the diſeaſe. Even too much light is hurtful; for which reaſon the patient's chamber ought to be a little darkened, and he ſhould neither be kept too hot nor too cold. It is not however neceſſary to exclude the company of an agreeable friend, as this has a tendency to ſoothe and quiet the mind. Neither ought the patient to be kept too much in the dark, leſt it ſhould occaſion a gloomy melancholy, which is too often the conſequence of this diſeaſe.

The patient muſt, as far as poſſible, be ſoothed and humoured in every thing. Contradiction will ruffle his mind, and increaſe his malady. Even when he calls for things which are not to be obtained, or which might prove hurtful, he is not to be poſitively denied them, but rather put off with the promiſe of having them as ſoon as they can be obtained, or by ſome other excuſe. A little of any thing that the mind is ſet upon, though not quite proper, will hurt the patient leſs than a poſitive refuſal. In a word, whatever he was fond of, or uſed to be delighted with when in health, may here be tried, as pleaſing ſtories, ſoft muſic, or whatever has a tendency to ſoothe the paſſions and compoſe the mind. Boerhaave

propoſes

propoſes ſeveral mechanical experiments for this purpoſes; as the ſoft noiſe of water diſtilling by drops into a baſon, and the patient trying to reckon them, &c. Any uniform ſound, if low and continued, has a tendency to procure ſleep, and conſequently may be of ſervice.

The aliment ought to be light, conſiſting chiefly of farinaceous ſubſtances; as panada, and water-gruel ſharpened with jelly of currants, or juice of lemons, ripe fruits roaſted or boiled, jellies, preſerves, &c. The drink ſmall, diluting, and cooling; as whey, barley-water, or decoctions of barley and tamarinds, which latter not only render the liquor more palatable, but likewiſe more beneficial, as they are of an opening nature.

MEDICINE.—In an inflammation of the brain, nothing more certainly relieves the patient than a free diſcharge of blood from the noſe. When this comes of its own accord, it is by no means to be ſtopped, but rather promoted, by applying cloths dipped in warm water to the part. The chief remedy is frequent and copious bleeding.

Bleeding in the temporal arteries alſo greatly relieves the head: but as this operation cannot always be performed, we would recommend in its ſtead bleeding in the jugular veins. When the patient's pulſe and ſpirits are ſo low, that he cannot bear bleeding with the lancet, leeches may be applied to the temples. Theſe not only draw off the blood more gradually, but by being applied nearer to the part affected, generally give more immediate relief. Cupping is alſo of eſſential ſervice in this caſe.

A diſcharge of blood from the hæmorrhoidal veins is likewiſe of great ſervice, and ought by all means to be promoted. If the patient has been ſubject to the bleeding piles, and the diſcharge has been ſtopped, every method muſt be tried to reſtore it; as the application

plication of leeches to the parts, ſitting over the ſteams of warm water, ſharp clyſters, or ſuppoſitories made of honey, aloes, and rock-ſalt.

If the inflammation of the brain be occaſioned by the ſtoppage of evacuations either natural or artificial, as the menſes, iſſues, ſetons, or ſuch like, all means muſt be uſed to reſtore them as ſoon as poſſible, or to ſubſtitute others in their ſtead.

The patient's body muſt be kept open by ſtimulating clyſters or ſmart purges; and ſmall quantities of nitre ought frequently to be mixed with his drink. Two or three drachms, or more, if the caſe be dangerous, may be uſed in the ſpace of twenty-four hours.

The head ſhould be ſhaved and cloths dipped in cold water frequently applied to it.

If the diſeaſe proves obſtinate and does not yield to theſe medicines, it will be neceſſary to apply a bliſtering-plaſter to the whole head. Bliſters to the ancles are alſo very uſeful.

CHAP. XXVIII.

Of the Ophthalmia, or Inflammation of the Eyes.

THIS diſeaſe may be occaſioned by external injuries; as blows, burns, bruiſes, and the like. It may likewiſe proceed from duſt, quick-lime, or other ſubſtances, getting into the eyes. It is often cauſed by the ſtoppage of cuſtomary evacuations; as the healing of old ſores, drying up of iſſues, the ſuppreſſing of gentle morning ſweats, or of the ſweating of the feet, &c. Long expoſure to the night air, eſpecially in cold northerly winds, or whatever

whatever ſuddenly checks the perſpiration, eſpecially after the body has been much heated, is very apt to cauſe an inflammation of the eyes. Viewing ſnow or other white bodies for a long time, or looking ſteadfaſtly at the ſun, a clear fire, or any bright object, will likewiſe occaſion this malady. A ſudden tranſition from darkneſs to very bright light will often have the ſame effect.

Nothing more certainly occaſions an inflammation of the eyes than night-watching, eſpecially reading or writing by candle-light. Drinking ſpirituous liquors, and exceſs of venery are likewiſe very hurtful to the eyes. The acrid fumes of metals, and of ſeveral kinds of fuel, are alſo pernicious. Sometimes an inflammation of the eyes proceeds from a venereal taint, and often from a ſcrophulous or gouty habit. It may likewiſe be occaſioned by hairs in the eye-lids turning inwards, and hurting the eyes. Sometimes the diſeaſe is epidemic, eſpecially after wet ſeaſons, and often in dry ſeaſons; and I have frequently known it to prove infectious, particularly to thoſe who lived in the ſame houſe with the patient. It may be occaſioned by moiſt air, or living in low damp houſes, eſpecially in perſons who are not accuſtomed to ſuch ſituations. In children it often proceeds from imprudently drying up of ſcabbed heads, a running behind the ears, or any other diſcharge of that kind. Inflammations of the eyes often ſucceed the ſmall-pox or meaſles, eſpecially in children of a ſcrophulous habit.

SYMPTOMS.—An inflammation of the eyes is attended with acute pain, heat, redneſs, and ſwelling. The patient is not able to bear the light, and ſometimes he feels a pricking pain, as if his eyes were pierced with a thorn. Sometimes he imagines his eyes are full of motes, or thinks he ſees flies dancing before him. The eyes are filled with a ſcalding rheum, which ruſhes forth in great quantities, whenever

whenever the patient attempts to look up. The pulſe is generally quick and hard, with ſome degree of fever. When the diſeaſe is violent, the neighbouring parts ſwell, and there is a throbbing or pulſation in the temporal arteries, &c.

A ſlight inflammation of the eyes, eſpecially from an external cauſe, is eaſily cured; but when the diſeaſe is violent, and continues long, it often leaves ſpecks upon the eyes, or dimneſs of ſight, and ſometimes total blindneſs.

If the patient be ſeized with a looſeneſs, it has a good effect; and when the inflammation paſſes from one eye to another, as it were by infection, it is no unfavourable ſymptom. But when the diſeaſe is accompanied with a violent pain of the head, and continues long, the patient is in danger of loſing his ſight.

REGIMEN.——The diet, unleſs in ſcrophulous caſes, can hardly be too ſpare, eſpecially at the beginning. The patient muſt abſtain from every thing of a heating nature. His food ſhould conſiſt chiefly of mild vegetables, weak broths, and gruels. His drink may be barley-water, balm-tea, common whey, and ſuch like.

The patient's chamber muſt be darkened, or his eyes ſhaded by a cover, ſo as to exclude the light, but not to preſs upon the eyes. He ſhould not look at a candle, the fire, or any luminous object; and ought to avoid all ſmoke, as the fumes of tobacco, or any thing that may cauſe coughing, ſneezing, or vomiting. He ſhould be kept quiet, avoiding all violent efforts, either of body or mind, and encouraging ſleep as much as poſſible.

MEDICINE.——This is one of thoſe diſeaſes wherein great hurt is often done by external applications. Almoſt every perſon pretends to be poſſeſſed of a remedy for the cure of ſore eyes. Theſe remedies generally conſiſt of eye-waters and ointments,

ments, with other external applications, which do miſchief twenty times for once they do good. People ought therefore to be very cautious how they uſe ſuch things, as even the preſſure upon the eyes often increaſes the malady.

Bleeding, in a violent inflammation of the eyes, is always neceſſary. This ſhould be performed as near the part affected as poſſible. An adult may loſe ten or twelve ounces of blood from the jugular vein, and the operation may be repeated according to the urgency of the ſymptoms. If it ſhould not be convenient to bleed in the neck, the ſame quantity may be let from the arm, or any other part of the body, eſpecially from the temples and behind the ears by cupping.

Leeches are often applied to the temples, or under the eyes, with good effect. The wounds muſt be ſuffered to bleed for ſome hours, and if the bleeding ſtop ſoon, it may be promoted by the application of cloths dipt in warm water. In obſtinate caſes, it will be neceſſary to repeat this operation ſeveral times.

Opening and diluting medicines are, by no means, to be neglected. The patient may take a ſmall doſe of Glauber's ſalts, and cream of tartar, every ſecond or third day, or a decoction of tamarinds with ſenna. If theſe be not agreeable, gentle doſes of rhubarb and nitre, a little lenitive electuary, or any other mild purgative will anſwer the ſame end. The patient, at the ſame time, muſt drink freely of water-gruel, tea, whey, or any other weak diluting liquor. The Collyrium of lead, (ſee Appendix,) ſhould be dropped into the eyes, often in a day.

If the inflammation does not yield to theſe evacuations, bliſtering-plaſters muſt be applied to the temples, behind the ears, or upon the neck, and kept open for ſome time, by the mild bliſtering ointment. I have

ſeldom

ſeldom known theſe, long enough kept open, fail to remove the moſt obſtinate inflammation of the eyes; but, for this purpoſe, it is often neceſſary to continue the diſcharge for ſeveral weeks.

When the diſeaſe has been of long ſtanding, I have ſeen very extraordinary effects from a ſeton in the neck, or between the ſhoulders, eſpecially the latter. It ſhould be put upwards and downwards, or in the direction of the ſpine, and in the middle between the ſhoulder-blades. It may be dreſſed twice a-day with yellow baſilicon. I have known patients, who had been blind for a conſiderable time, recover ſight by means of a ſeton placed as above. When the ſeton is put acroſs the neck, it ſoon wears out, and is both more painful and troubleſome than between the ſhoulders; beſides, it leaves a diſagreeable mark, and does not diſcharge ſo freely. An iſſue in each arm made by a cauſtic is alſo very beneficial.

When the heat and pain of the eyes are very great, a poultice of bread and milk, ſoftened with ſweet oil or freſh butter, may be applied to them, at leaſt all night; and they may be bathed with milk and water in the morning.

If the patient cannot ſleep, which is ſometimes the caſe, he may take twenty or thirty drops of laudanum, or two tea-ſpoonfuls of the paregoric elixir, over night, more or leſs, according to his age, or the violence of the ſymptoms.

After the inflammation is gone off, if the eyes ſtill remain weak and tender they may be bathed every night and morning with cold water and a little brandy, ſix parts of the former to one of the latter. A method ſhould be contrived by which the eye can be quite immerſed in the brandy and water, where it ſhould be kept for ſome time. I have generally found this, or cold water and vinegar, as good a ſtrengthener of the eyes, as many of the moſt celebrated collyriums.

When

When an inflammation of the eyes proceeds from a ſcrophulous habit, it generally proves very obſtinate. The moſt proper medicine is the Peruvian bark, which may either be given in ſubſtance, or prepared in the following manner:

Take an ounce of the bark in powder, with two drachms of Winter's bark, and boil them in a quart of water to a pint; when it has boiled nearly long enough, add half an ounce of liquorice-root ſliced. Let the liquor be ſtrained. Two, three, or four table ſpoonfuls, according to the age of the patient, may be taken three or four times a-day. It is impoſſible to ſay how long this medicine ſhould be continued, as the cure is ſooner performed in ſome than in others; but, in general, it requires a conſiderable time to produce any laſting effects.

Dr. Cheyne ſays, "That Æthiops mineral never "fails in obſtinate inflammations of the eyes, even "ſcrophulous ones, if given in a ſufficient doſe, and "duly perſiſted in." There is no doubt but this, and other preparations of mercury, may be of ſingular ſervice in ophthalmias of long continuance, but they ought always to be adminiſtered with the greateſt caution, or by perſons of ſkill in phyſic. In obſtinate ophthalmias, a grain of calomel every night, for one or two weeks, is of great ſervice; and, when ſpecks or films are formed on the ſight, this medicine, with a bliſter or iſſue, is of the greateſt ſervice.

It will be proper frequently to look into the eyes, to ſee if any hairs be turned inwards, or preſſing upon them*. Theſe ought to be removed by plucking them out with a pair of ſmall pincers.

* Any foreign body lodged in the eye, may be expeditiouſly removed, by paſſing a ſmall hair pencil between the eye-lid and the ball of the eye. In ſome places, the peaſants do this very effectually, by uſing their tongue in the ſame manner.

Thoſe

Thoſe who are liable to frequent returns of this diſeaſe, ought conſtantly to have an iſſue on one or both arms. Bleeding or purging, in the ſpring and autumn, will be very beneficial to ſuch perſons. They ought likewiſe to live with the greateſt regularity, avoiding ſtrong liquor, and every thing of a heating quality. Above all let them avoid the night-air and late ſtudies.

CHAP. XXIX.

Of the Quinſey, or Inflammation of the Throat.

THIS diſeaſe is very common, and is frequently attended with great danger. It prevails in the winter and ſpring, and is moſt fatal to young people of a ſanguine temperament.

CAUSES.—In general it proceeds from the ſame cauſes as other inflammatory diſorders, *viz.* an obſtructed perſpiration, or whatever heats or inflames the blood. An inflammation of the throat is often occaſioned by omitting ſome part of the covering uſually worn about the neck, by drinking cold liquor when the body is warm, by riding or walking againſt a cold northerly wind, or any thing that greatly cools the throat, and parts adjacent. It may likewiſe proceed from the neglect of bleeding, purging, or any cuſtomary evacuation.

Singing, ſpeaking loud and long, or whatever ſtrains the throat, may likewiſe cauſe an inflammation of that organ. I have often known the quinſey prove fatal to jovial companions, who, after ſitting long in a warm room, drinking hot liquors, and

ſinging with vehemence, were ſo imprudent as to go abroad in the cold night-air. Wearing thin ſhoes, ſitting with wet feet, or keeping on wet clothes, are very apt to occaſion this malady. It is likewiſe frequently occaſioned by continuing long in a moiſt place, ſitting near an open window, ſleeping in a damp bed, ſitting in a room that has been newly plaſtered, &c. I know people who never fail to have a ſore throat if they ſit even but a ſhort time in a room that has been lately waſhed.

Acrid or irritating food may likewiſe inflame the throat, and occaſion a quinſey. It may alſo proceed from bones, pins, or other ſharp ſubſtances, ſticking in the throat, or from the cauſtic fumes of metals or minerals, as arſenic, antimony, &c. taken in by the breath.

SYMPTOMS.—The inflammation of the throat is evident from inſpection, the parts appearing red and ſwelled; beſides, the patient complains of pain in ſwallowing. His pulſe is quick and hard, with other ſymptoms of a fever. If blood be let, it is generally covered with a tough coat of a whitiſh colour, and the patient ſpits a tough phlegm. As the ſwelling and inflammation increaſe, the breathing and ſwallowing become more difficult; the pain affects the ears; the eyes generally appear red; and the face ſwells. The patient is often obliged to keep himſelf in an erect poſture, being in danger of ſuffocation; there is a conſtant naufea, or inclination to vomit, and the drink, inſtead of paſſing into the ſtomach, is often returned by the noſe. The patient is ſometimes ſtarved at laſt, merely from an inability to ſwallow any kind of food.

When the breathing is laborious, with ſtraitneſs of the breaſt, and anxiety, the danger is great. Though the pain in ſwallowing be very great, yet while the patient breathes eaſy, there is not ſo much danger.

An external ſwelling is no unfavourable ſymptom; but if it ſuddenly falls, and the diſeaſe affects the breaſt, the danger is very great. When a quinſey is the conſequence of ſome other diſeaſe, which has already weakened the patient, his ſituation is dangerous. A frothing at the mouth, with a ſwelled tongue, a pale ghaſtly countenance, and coldneſs of the extremities, are fatal ſymptoms.

REGIMEN.—The regimen in this diſeaſe is in all reſpects the ſame as in the pleuriſy, or peripneumony. The food muſt be light, and in ſmall quantity, and the drink plentiful, weak, and diluting, mixed with acids.

It is highly neceſſary that the patient be kept eaſy and quiet. Violent affections of the mind, or great efforts of the body, may prove fatal. He ſhould not even attempt to ſpeak but in a low voice. Such a degree of warmth as to promote a conſtant, gentle ſweat, is proper. When the patient is in bed, his head ought to be raiſed a little higher than uſual.

It is peculiarly neceſſary that the neck be kept warm; for which purpoſe ſeveral folds of ſoft flannel may be wrapt round it. That alone will often remove a ſlight complaint of the throat, eſpecially if applied in due time. We cannot here omit obſerving the propriety of a cuſtom which prevails among the peaſants of Scotland. When they feel any uneaſineſs of the throat, they wrap a ſtocking about it all night. So effectual is this remedy, that in many places it paſſes for a charm, and the ſtocking is applied with particular ceremonies: the cuſtom, however, is undoubtedly a good one, and ſhould never be neglected. When the throat has been thus wrapped up all night, it muſt not be expoſed to the cold air through the day, but a handkerchief or a piece of flannel kept about it, till the inflammation be removed.

The jelly of black currants is a medicine very much in eſteem for complaints of the throat; and indeed it is of ſome uſe. It ſhould be almoſt conſtantly kept in the mouth, and ſwallowed down leiſurely. It may likewiſe be mixed in the patient's drink, or taken any other way. When it cannot be obtained, the jelly of red currants, or of mulberries, may be uſed in its ſtead.

Gargles for the throat are very beneficial. They may be made of ſage-tea, with a little vinegar or alum and honey, or by adding to half an Engliſh pint of the pectoral decoction two or three ſpoonfuls of honey, and the ſame quantity of currant-jelly. This may be uſed three or four times a-day; and if the patient be troubled with tough viſcid phlegm, the gargle may be rendered more ſharp and cleanſing, by adding to it a tea-ſpoonful of the ſpirit of *ſal ammoniac*. Some recommend gargles made of a decoction of the leaves or bark of the black currant-buſh; but where the jelly can be had, theſe are unneceſſary. Two tea-ſpoonfuls of the crude ſal ammoniac powdered, in a full pint of water, makes an excellent gargle.

There is no diſeaſe wherein the benefit of bathing the feet and legs in lukewarm water is more apparent: that practice ought therefore never to be neglected. If people were careful to keep warm, to wrap up their throats with flannel, to bathe their feet and legs in warm water, and to uſe a ſpare diet, with diluting liquors, at the beginning of this diſeaſe, it would ſeldom proceed to a great height, or be attended with any danger; but when theſe precautions are neglected, and the diſeaſe becomes violent, more powerful medicines are neceſſary.

MEDICINE.——An inflammation of the throat being a moſt acute and dangerous diſtemper, which ſometimes takes off the patient very ſuddenly, it

will be proper, as ſoon as the ſymptoms appear, to bleed in the arm, and to repeat the operation if circumſtances require.

The body ſhould likewiſe be kept gently open. This may either be done by giving the patient for his ordinary drink a decoction of figs and tamarinds, or ſmall doſes of rhubarb and nitre, as recommended in the eryſipelas, or of Glauber's ſalt. Theſe may be increaſed according to the age of the patient, and repeated till they have the deſired effect.

I have often known very good effects from a bit of *ſal prunel*, or purified nitre, held in the mouth, and ſwallowed down as it melted. This promotes the diſcharge of *ſaliva*, by which means it anſwers the end of a gargle, while at the ſame time it abates the fever, by promoting the diſcharge of urine, &c.

The throat ought likewiſe to be rubbed twice or thrice a-day with a little of the volatile liniment. This ſeldom fails to produce ſome good effects. At the ſame time the neck ought to be carefully covered with wool or flannel, to prevent the cold from penetrating the ſkin, as this application renders it very tender.

Bliſtering upon the neck or behind the ears in violent inflammations of the throat is very beneficial; and in bad caſes it will be neceſſary to lay a bliſtering-plaſter quite acroſs the throat, ſo as to reach from ear to ear. After the plaſters are taken off, the parts ought to be kept running by the application of iſſue ointment, till the inflammation is gone.

When the patient has been treated as above, a ſuppuration ſeldom happens. This, however, is ſometimes the caſe, in ſpite of all endeavours to prevent it. When the inflammation and ſwelling continue, and it is evident that a ſuppuration will enſue,

enſue, it ought to be promoted by drawing the ſteam of warm water into the throat through a funnel, or the like. Soft poultices ought likewiſe to be applied outwardly, and the patient may keep a roaſted fig conſtantly in his mouth.

It ſometimes happens, before the tumor breaks, that the ſwelling is ſo great, as entirely to prevent any thing from getting into the ſtomach. In this caſe the patient muſt inevitably periſh, unleſs he can be ſupported in ſome other way. This can only be done by nouriſhing clyſters of broth, or gruel with milk, &c. Patients have often been ſupported by theſe for ſeveral days, till the tumor has broke; and afterwards they have recovered.

Not only the ſwallowing, but the breathing, is often prevented by the tumor. In this caſe nothing can ſave the patient's life but opening the *trachea* or wind-pipe. As that has been often done with ſucceſs, no perſon, in ſuch deſperate circumſtances, ought to heſitate a moment about the operation; but as it can only be performed by a ſurgeon, it is not neceſſary here to give any directions about it.

When a difficulty of ſwallowing is not attended with an acute pain or inflammation, it is generally owing to an obſtruction of the glands about the throat, and only requires that the part be kept warm, and the throat frequently gargled with ſomething that may gently ſtimulate the glands, as a decoction of figs with vinegar and honey; to which may be added a little muſtard, or a ſmall quantity of ſpirits. But this gargle is never to be uſed where there are ſigns of an inflammation. This ſpecies of *angina* has various names among the common people, as the falling down of the *almonds of the ears*, &c. Accordingly, to remove it, they lift the patient up by the hair of the head, and thruſt their fingers

under his jaws, &c. all which practices are at beſt uſeleſs, and often hurtful.

Thoſe who are ſubject to inflammations of the throat, in order to avoid that diſeaſe, ought to live temperately. Such as do not chuſe to obſerve this rule, muſt have frequent recourſe to purging and other evacuations, to diſcharge the ſuperfluous humors. They ought likewiſe to beware of catching cold, and ſhould abſtain from aliment and medicines of an aſtringent or ſtimulating nature.

Violent exerciſe, by increaſing the motion and force of the blood, is apt to occaſion an inflammation of the throat, eſpecially if cold liquor be drank immediately after it, or the body ſuffered ſuddenly to cool. Thoſe who would avoid this diſeaſe, ought therefore, after ſpeaking aloud, ſinging, running, drinking warm liquor, or doing any thing that may ſtrain the throat, or increaſe the circulation of the blood towards it, to take care to cool gradually, and to wrap ſome additional coverings about their necks.

I have often known perſons who had been ſubject to ſore throats, entirely freed from that complaint by only wearing a ribband, or a bit of flannel, conſtantly about their necks, or by wearing thicker ſhoes, a flannel waiſtcoat, or the like. Theſe may ſeem trifling, but they have great effects. There is danger indeed in leaving them off after perſons have been accuſtomed to them; but ſurely the inconveniency of uſing ſuch things for life, is not to be compared with the danger which may attend the neglect of them.

Sometimes, after an inflammation, the glands of the throat continue ſwelled, and become hard and callous. This complaint is not eaſily removed, and is often rendered dangerous by the too frequent application of ſtrong ſtimulating and ſtyptic medicines.

medicines. The beſt method is to keep it warm, and to gargle it twice a-day with a decoction of figs ſharpened a little with the elixir or ſpirit of vitriol.

OF THE MALIGNANT QUINSEY, OR PUTRID ULCEROUS SORE THROAT.

This kind of quinſey is but little known in the northern parts of Britain, though, for ſome time paſt, it has been fatal in the more ſouthern counties. Children are more liable to it than adults, females than males, and the delicate than thoſe who are hardy and robuſt. It prevails chiefly in autumn, and is moſt frequent after a long courſe of damp or ſultry weather.

CAUSES.—This is evidently a contagious diſtemper, and is generally communicated by infection. Whole families, and even entire villages, often receive the infection from one perſon. Whatever tends to produce putrid or malignant fevers, may likewiſe occaſion the putrid ulcerous ſore throat, as unwholeſome air, damaged proviſions, neglect of cleanlineſs, &c.

SYMPTOMS.—It begins with alternate fits of ſhivering and heat. The pulſe is quick, but low and unequal, and generally continues ſo through the whole courſe of the diſeaſe. The patient complains greatly of weakneſs and oppreſſion of the breaſt; his ſpirits are low, and he is apt to faint away when ſet upright; he is troubled with a nauſea, and often with a vomiting or purging. The two latter are moſt common in children. The eyes appear red and watery, and the face ſwells. The urine is at firſt pale and crude; but, as the diſeaſe advances, it turns more of a yellowiſh colour. The tongue is white, and generally moiſt, which diſtin-

guiſhes this diſeaſe. Upon looking into the throat it appears ſwelled, and of a florid red colour. Pale or aſh-coloured ſpots, however, are here and there interſperſed, and ſometimes one broad patch or ſpot, of an irregular figure, and pale white colour, ſurrounded with florid red, only appears. Theſe whitiſh ſpots or ſloughs cover ſo many ulcers.

An efflorescence, or eruption upon the neck, arms, breaſt, and fingers, about the ſecond or third day, is a common ſymptom of this diſeaſe. When it appears, the purging and vomiting generally ceaſe.

There is often a ſlight degree of delirium, and the face frequently appears bloated, and the inſide of the noſtrils red and inflamed. The patient complains of a diſagreeable putrid ſmell, and his breath is very offenſive.

The putrid, ulcerous ſore throat may be diſtinguiſhed from the inflammatory by the vomiting and looſeneſs with which it is generally uſhered in; the foul ulcers in the throat covered with a white or livid coat; and by the exceſſive weakneſs of the patient.

Unfavourable ſymptoms are, an obſtinate purging, extreme weakneſs, dimneſs of the ſight, a livid or black colour of the ſpots, and frequent ſhiverings, with a weak fluttering pulſe. If the eruption upon the ſkin ſuddenly diſappears, or becomes of a livid colour, with a diſcharge of blood from the noſe or mouth, the danger is very great.

If a gentle ſweat break out about the third or fourth day, and continue with a ſlow, firm, and equal pulſe; if the ſloughs caſt off in a kindly manner, and appear clean and florid at the bottom; and if the breathing is ſoft and free, with a lively colour of the eyes, there is reaſon to hope for a ſalutary criſis.

REGIMEN.——The patient muſt be kept quiet, and for the moſt part in bed, or on the bed. His food

food muſt be nouriſhing and reſtorative; as ſago-gruel with red wine, jellies, ſtrong broths, &c. His drink ought to be generous, and of an antiſeptic quality; as red-wine negus, white-wine whey, and ſuch like.

MEDICINE.——The medicine in this kind of quinſey is rather different from that which is proper in the inflammatory. However, if the pulſe requires it, bleeding muſt be performed and repeated, but if the pulſe is very weak, all evacuations, as bleeding, purging, &c. which weaken the patient, muſt be avoided. Cooling medicines, as nitre and cream of tartar, are then likewiſe hurtful. Strengthening cordials alone can be uſed with ſafety; and theſe ought never to be neglected.

If at the beginning there is a great nauſea, or inclination to vomit, the patient muſt drink an infuſion of green tea, camomile flowers, or *carduus benedictus*, in order to cleanſe the ſtomach. If theſe are not ſufficient, he may take a few grains of the powder of ipecacuanha, or any other gentle vomit.

If the diſeaſe is mild, the throat may be gargled with an infuſion of ſage and roſe leaves, to a gill of which may be added a ſpoonful or two of honey, and as much vinegar as will make it agreeably acid; but when the ſymptoms are urgent, the ſloughs large and thick, and the breath very offenſive, the following gargle may be uſed:

To ſix or ſeven ounces of the pectoral decoction, when boiling, add half an ounce of contrayerva-root; let it boil for ſome time, and afterwards ſtrain the liquor; to which add two ounces of white-wine vinegar, an ounce of fine honey, and an ounce of the tincture of myrrh. This ought not only to be uſed as a gargle, but a little of it ſhould frequently be injected with a ſyringe to clean the throat, before the patient takes any meat or drink. This method

is

is peculiarly neceſſary for children who cannot uſe a gargle.

It will be of great benefit if the patient frequently receives into his mouth, through an inverted funnel, the ſteams of warm vinegar, myrrh, and honey.

But when the putrid ſymptoms run high, and the diſeaſe is attended with danger, the only medicine that can be depended upon is the Peruvian bark. It may be taken in ſubſtance, if the patient's ſtomach will bear it. If not, an ounce of bark groſsly powdered, with two drachms of Virginian ſnake-root, may be boiled in a pint and a half of water to half a pint; to which a tea-ſpoonful of the elixir of vitriol may be added, and an ordinary tea-cupfull of it taken every three or four hours. Bliſtering-plaſters are very beneficial in this diſeaſe, eſpecially when the patient's pulſe and ſpirits are low. They may be applied to the throat, behind the ears, or upon the back part of the neck.

Should the vomiting prove troubleſome, it will be proper to give the patient two table-ſpoonfuls of the ſaline julep every hour. Tea made of mint and a little cinnamon will be very proper for his ordinary drink, eſpecially if an equal quantity of red-wine be mixed with it.

In caſe of a violent looſeneſs, the ſize of a nutmeg of *diaſcordium*, or the japonic confection, may be taken two or three times a-day, or oftener if neceſſary.

If a diſcharge of blood from the noſe happens, the ſteams of warm vinegar may be received up the noſtrils frequently; and the drink muſt be ſharpened with ſpirits of vitriol, or tincture of roſes.

In caſes of a ſtrangury, the belly muſt be fomented with warm water, and emollient clyſters given three or four times a-day.

After

After the violence of the diſeaſe is over, the body ſhould be kept open with mild purgatives; as manna, ſenna, rhubarb, or the like.

If great weakneſs and dejection of ſpirits, or night-ſweats, with other ſymptoms of a conſumption, ſhould enſue, we would adviſe the patient to continue the uſe of the Peruvian bark, with the elixir of vitriol, and to take frequently a glaſs of generous wine. Theſe, together with a milk-diet, and riding on horſeback, are the moſt likely means for recovering his ſtrength*.

CHAP. XXX.

Of Colds and Coughs.

IT has already been obſerved, that colds are the effect of an obſtructed perſpiration; the common cauſes of which we have likewiſe endeavoured to point out, and ſhall not here repeat them. Neither ſhall we ſpend time in enumerating all the various ſymptoms of colds, as they are pretty generally known. It may not however be amiſs to obſerve, that almoſt every cold is a kind of fever, which only differs in degree from ſome of thoſe which have been already treated of.

* This diſeaſe, in reality, ſhould be treated, according to the ſymptoms—if highly inflammatory we bleed, purge, &c. and it is always more or leſs ſo at its firſt onſet. The ingenious author ſeems to have regarded it as a diſeaſe of debility, or, as he ſtiles it, putridity. In America, the moſt ſucceſsful mode of treatment is, to uſe the cooling or cordial regimen according to the ſymptoms; and with this generally to give, firſt an emetic of ipecacuanha, and afterwards a few grains of calomel twice every day until the ſloughs come off.

No

No age, ſex, or conſtitution, is exempted from this diſeaſe; neither is it in the power of any medicine or regimen to prevent it. The inhabitants of every climate are liable to catch cold, nor can even the greateſt circumſpection defend them at all times from its attacks. Indeed, if the human body could be kept conſtantly in an uniform degree of warmth, ſuch a thing as catching cold would be impoſſible: but as that cannot be effected by any means, the perſpiration muſt be liable to many changes. Such changes, however, when ſmall, do not affect the health; but, when great, they muſt prove hurtful.

When oppreſſion of the breaſt, a ſtuffing of the noſe, unuſual wearineſs, pain of the head, &c. give ground to believe that the perſpiration is obſtructed, or, in other words, that the perſon has caught cold, he ought immediately to leſſen his diet, at leaſt the uſual quantity of his ſolid food, and to abſtain from all ſtrong liquors. Inſtead of fleſh, fiſh, eggs, milk, and other nouriſhing diet, he may eat light bread-pudding, veal or chicken broth, panada, gruels, and ſuch like. His drink may be water-gruel ſweetened with a little honey; an infuſion of balm, or flaxſeed ſharpened with the juice of limes or lemon; a decoction of barley and liquorice, with tamarinds, or any other cool, diluting, acid liquor.

Above all, his ſupper ſhould be light; as ſmall poſſet, or water-gruel ſweetened with honey, and a little toaſted bread in it. If honey ſhould diſagree with the ſtomach, the gruel may be ſweetened with molaſſes or coarſe ſugar, and ſharpened with the jelly of currants. Thoſe who have been accuſtomed to generous liquors may take wine-whey inſtead of gruel, which may be ſweetened as above.

The patient ought to bathe his feet, to lie longer than uſual a-bed, and to encourage a gentle ſweat, which is eaſily brought on towards morning, by drinking

drinking tea, or any kind of warm diluting liquor. I have often known this practice carry off a cold in one day, which in all probability, had it been neglected, would have coſt the patient his life, or have confined him for ſome months. Would people ſacrifice a little time to eaſe and warmth, and practiſe a moderate degree of abſtinence when the firſt ſymptoms of a cold appear, we have reaſon to believe, that moſt of the bad effects which flow from an obſtructed perſpiration might be prevented. But, after the diſeaſe has gathered ſtrength by delay, all attempts to remove it often prove vain. A pleuriſy, a peripneumony, or a fatal conſumption of the lungs, are the common effects of colds which have either been totally neglected or treated improperly.

Many attempt to cure a cold, by getting drunk. But this, to ſay no worſe of it, is a very hazardous experiment. No doubt it may ſometimes ſucceed, by ſuddenly reſtoring the perſpiration; but when there is any degree of inflammation, which is frequently the caſe, ſtrong liquors, inſtead of removing the malady will increaſe it. By this means a common cold may be converted into an inflammatory fever.

When thoſe who labour for their daily bread have the misfortune to catch cold, they cannot afford to loſe a day or two, in order to keep themſelves warm and take a little medicine; by which means the diſorder is often ſo aggravated as to confine them for a long time, or even to render them ever after unable to ſuſtain hard labour. But even ſuch of the labouring poor as can afford to take care of themſelves, are often too hardy to do it; they affect to deſpiſe colds, and as long as they can crawl about, ſcorn to be confined by what they call a *common cold*. Hence it is, that colds deſtroy ſuch numbers of mankind. Like an enemy deſpiſed, they gather ſtrength from

from delay; till at length they become invincible. We often ſee this verified in travellers, who, rather than loſe a day in the proſecution of their buſineſs, throw away their lives by purſuing their journey, even in the ſevereſt weather, with this diſeaſe upon them.

It is certain, however, that colds may be too much indulged. When a perſon, for every ſlight cold, ſhuts himſelf up in a warm room, and drinks great quantities of warm liquor, it may occaſion ſuch a general relaxation of the ſolids as will not be eaſily removed. It will therefore be proper, when the diſeaſe will permit, and the weather is mild, to join to the regimen mentioned above, gentle exerciſe; as walking, riding on horſeback, or in a carriage, &c. An obſtinate cold, which no medicine can remove, will yield to gentle exerciſe and a proper regimen of the diet.

Bathing the feet and legs in warm water has a great tendency to reſtore the perſpiration. But care muſt be taken that the water be not too warm, otherwiſe it will do hurt. It ſhould never be warmer than is agreeable to the hand of a perſon in health, and the patient ſhould go immediately to bed after uſing it. Bathing the feet in warm water, lying in bed, and drinking warm water-gruel, or other weak liquors, will ſooner take off a ſpaſm, and reſtore the perſpiration, than all the hot ſudorific medicines in the world. This is all that is neceſſary for removing a common cold; and if this courſe be taken at the beginning, it will ſeldom fail.

But when the ſymptoms do not yield to abſtinence, warmth, and diluting liquors, there is reaſon to fear the approach of ſome other diſeaſe, as an inflammation of the breaſt, an ardent fever, or the like. If the pulſe, therefore, be hard and frequent, the ſkin hot and dry, and the patient complains of

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his head or breaſt, it will be neceſſary to bleed, and to give the cooling powders recommended in the ſcarlet fever every three or four hours, till they give a ſtool.

It will likewiſe be proper to give two table-ſpoonfuls of the ſaline mixture every two hours, and in ſhort to treat the patient in all reſpects as for a ſlight fever. I have often ſeen this courſe, when obſerved at the beginning, remove the complaint in two or three days, when the patient had all the ſymptoms of an approaching ardent fever, or an inflammation of the breaſt.

The chief ſecret of preventing colds lies in avoiding, as far as poſſible, all extremes either of heat or cold, and in taking care, when the body is heated, to let it cool gradually. Theſe, and other circumſtances relating to this important ſubject, are ſo fully treated of under the article *Obſtructed Perſpiration*, that it is needleſs here to reſume the conſideration of them.

OF A COMMON COUGH.

A cough is generally the effect of a cold, which has either been improperly treated, or entirely neglected. When it proves obſtinate, there is always reaſon to fear the conſequences, as this ſhews a weak ſtate of the lungs, and is often the forerunner of a conſumption.

If the cough be violent, and the patient young and ſtrong, with a hard quick pulſe, bleeding will be proper. When the patient ſpits freely, and the pulſe is not hard, bleeding is unneceſſary, and ſometimes hurtful, as it tends to leſſen that diſcharge.

When the cough is not attended with any degree of fever, and the ſpittle is viſcid and tough, ſharp pectoral medicines are to be adminiſtered; as gum ammoniac, ſquills, &c. Two table-ſpoonfuls of the ſolution

ſolution of gum ammoniac may be taken three or four times a-day, more or leſs, according to the age and conſtitution of the patient. Squills may be given various ways: two ounces of the vinegar, the oxymel, or the ſyrup, may be mixed with the ſame quantity of ſimple cinnamon-water, to which may be be added an ounce of common water, and an ounce of ſyrup. Two table-ſpoonfuls of this mixture may be taken three or four times a-day.

A ſyrup made of equal parts of lemon-juice, honey, and ſugar-candy, is likewiſe very proper in this kind of cough. A table-ſpoonful of it may be taken at pleaſure.

But when the defluction is ſharp and thin, theſe medicines rather do hurt. In this caſe gentle opiates, oils, and mucilages are more proper. A cup of an infuſion of wild poppy leaves, and marſh-mallow roots, or the flowers of colts-foot, may be taken frequently; or a tea-ſpoonful of the paregoric elixir may be put into the patient's drink twice a-day.

When a cough is occaſioned by acrid humors tickling the throat and *fauces*, the patient ſhould keep ſome ſoft pectoral lozenges almoſt conſtantly in his mouth; as the liquorice cakes, barley-ſugar, the common balſamic lozenges, &c. Theſe blunt the acrimony of the humors, and by taking off their ſtimulating quality, help to appeaſe the cough*.

* In a former edition of this book I recommended, for an obſtinate tickling cough, an oily emulſion, made with the paregoric elixir of the Edinburgh Diſpenſatory, inſtead of the common alkaline ſpirit. I have ſince been told by ſeveral practitioners, that they found it to be an excellent medicine in this diſorder, and every way deſerving of the character which I had given of it. Where this elixir is not kept, its place may be ſupplied by adding to the common oily emulſion an adequate proportion of the *Theiais tincture*, or liquid laudanum.

In obſtinate coughs, proceeding from a flux of humors upon the lungs, it will often be neceſſary, beſides expectorating medicines, to have recourſe to iſſues, ſetons, or ſome other drain. In this caſe I have often obſerved the moſt happy effects from a Burgundy-pitch plaſter applied between the ſhoulders. I have ordered this ſimple remedy in the moſt obſtinate coughs, in a great number of caſes, and in many different conſtitutions, without ever knowing it fail to give relief, unleſs where there were evident ſigns of an ulcer in the lungs.

About the bulk of a nutmeg of Burgundy pitch may be ſpread thin upon a piece of ſoft leather, about the ſize of the hand, and laid between the ſhoulder-blades. It may be taken off and wiped every three or four days, and ought to be renewed once a fortnight or three weeks. This is indeed a cheap and ſimple medicine, and conſequently apt to be deſpiſed; but we will venture to affirm, that it is efficacious in almoſt every kind of cough. It has not indeed always an immediate effect; but, if kept on for ſome time, it will ſucceed where many other medicines fail.

The only inconveniency attending this plaſter is the itching which it occaſions; but ſurely this may be diſpenſed with, conſidering the advantage which the patient may expect to reap from the application; beſides, when the itching becomes very uneaſy, the plaſter may be taken off, and the part rubbed with a dry cloth, or waſhed with a little warm milk and water. Some caution indeed is neceſſary in diſcontinuing the uſe of ſuch a plaſter; this, however, may be ſafely done by making it ſmaller by degrees, and at length quitting it altogether in a warm ſeaſon. *

* Some complain that the pitch plaſter adheres too faſt, while others find difficulty in keeping it on. This proceeds

But coughs proceed from many other cauſes beſides defluctions upon the lungs. In theſe caſes the cure is not to be attempted by pectoral medicines. Thus, in a cough proceeding from a foulneſs and debility of the ſtomach, ſyrups, oils, mucilages, and all kinds of balſamic medicines do hurt. The *ſtomach cough* may be known from one that is owing to a fault in the lungs by this, that in the latter the patient coughs whenever he inſpires, or draws in his breath fully; but in the former that does not happen.

The cure of this cough depends chiefly upon cleanſing and ſtrengthening the ſtomach; for which purpoſe gentle vomits and bitter purgatives are moſt proper. Thus, after a vomit or two, the tincture of aloes * may be taken for a conſiderable time in the doſe of one or two tea-ſpoonfuls twice a-day, or as often as it is found neceſſary, to keep the body gently open.

In coughs which proceed from a debility of the ſtomach, the Peruvian bark is likewiſe of conſiderable ſervice. It may either be chewed, taken in powder, or made into a tincture along with other ſtomachic bitters.

A nervous cough can only be removed by change of air and proper exerciſe; to which may be added the uſe of gentle opiates. Inſtead of the ſaponaceous pill, the paregoric elixir, &c. which are only opium diſguiſed, ten, fifteen, twenty, or twenty-five drops of liquid laudanum, more or leſs, as circumſtances require, may be taken at bed-time, or when the cough is moſt troubleſome. Immerſing

from the different kinds of pitch made uſe of, and likewiſe from the manner of making it. I generally find it anſwer beſt when mixed with a little bees-wax, and ſpread as cool as poſſible. The clear, hard, tranſparent pitch anſwers the purpoſe beſt.

* See Appendix, *Tincture of Aloes.*

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the feet and hands in warm water will often appeaſe the violence of a nervous cough.

When a cough is only the ſymptom of ſome other malady, it is in vain to attempt to remove it without firſt curing the diſeaſe from which it proceeds. Thus when a cough is occaſioned by *teething*, keeping the body open, ſcarifying the gums, or whatever facilitates the cutting of the teeth, likewiſe appeaſes the cough. In like manner, when *worms* occaſion a cough, ſuch medicines as remove theſe vermin, will generally cure the cough; as bitter purgatives, oily clyſters, and ſuch like.

Women, during the laſt months of pregnancy, are often greatly afflicted with a cough, which is generally relieved by bleeding, and keeping the body gently open. They ought to avoid all flatulent food, and to wear a looſe eaſy dreſs.

A cough is not only a ſymptom, but is often likewiſe the forerunner of diſeaſes. Thus, the gout is frequently uſhered in by a very troubleſome cough, which affects the patient for ſome days before the coming on of the fit. This cough is generally removed by a paroxyſm of the gout, which ſhould therefore be promoted, by keeping the extremities warm, drinking warm liquors, and bathing the feet and legs frequently in lukewarm water.

OF THE WHOOPING COUGH, OR CHIN-COUGH.

This cough ſeldom affects adults, but proves often fatal to children. Such children as live upon thin watery diet, who breathe unwholeſome air, and have too little exerciſe, are moſt liable to this diſeaſe, and generally ſuffer moſt from it.

The chin-cough is ſo well known, even to nurſes, that a deſcription of it is unneceſſary. Whatever hurts the digeſtion, obſtructs the perſpiration, or

relaxes the ſolids, diſpoſes to this diſeaſe: conſequently its cure muſt depend upon cleanſing and ſtrengthening the ſtomach, bracing the ſolids, and at the ſame time promoting perſpiration and the different ſecretions.

The diet muſt be light, and of eaſy digeſtion; for children, good bread made into pap or pudding, chicken-broth, with other light ſpoon-meats, are proper; but thoſe who are farther advanced may be allowed ſago-gruel, and if the fever be not high, a little boiled chicken, or other white meats. The drink may be hyſſop, or penny-royal tea, ſweetened with honey or ſugar-candy, ſmall wine-whey; or, if the patient be weak, he may ſometimes be allowed a little negus.

One of the moſt effectual remedies in the chin-cough is change of air. This often removes the malady, even when the change ſeems to be from a purer to a leſs wholeſome air. This may in ſome meaſure depend on the patient's being removed from the place where the infection prevails. Moſt of the diſeaſes of children are infectious; nor is it at all uncommon to find the chin-cough prevailing in one town or village, when another, at a very ſmall diſtance, is quite free from it. But whatever be the cauſe, we are ſure of the fact. No time ought therefore to be loſt in removing the patient at ſome diſtance from the place where he caught the diſeaſe, and, if poſſible, into a more pure and warm air. *

When the diſeaſe proves violent, and the patient is in danger of being ſuffocated by the cough, he

* Some think the air ought not to be changed till the diſeaſe is on the decline; but there ſeems to be no ſufficient reaſon for this opinion, as patients have been known to reap benefit from a change of air at all periods of the diſeaſe. It is not ſufficient to take the patient out daily in a carriage.

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ought to be bled, eſpecially if there be a fever with a hard full pulſe. But as the chief intention of bleeding is to prevent an inflammation of the lungs, and to render it more ſafe to give vomits, it will ſeldom be neceſſary to repeat the operation; yet if there are ſymptoms of an inflammation of the lungs, a ſecond, or even a third bleeding may be requiſite.

It is generally reckoned a favourable ſymptom when a fit of coughing makes the patient vomit. This cleanſes the ſtomach, and greatly relieves the cough. It will therefore be proper to promote this diſcharge, either by ſmall doſes of ipecacuanha, or the vomiting julep, recommended in the Appendix. *

It is very difficult to make children drink after a vomit. I have often ſeen them happily deceived, by infuſing a ſcruple or half a drachm of the powder of ipecacuanha in a tea-pot, with half an Engliſh pint of boiling water. If this be diſguiſed with a few drops of milk, and a little ſugar, they will imagine it tea, and drink it very greedily. A ſmall tea-cupful of this may be given every quarter of an hour, or rather every ten minutes, till it operates. When the child begins to puke, there will be no occaſion for drinking any more, as the water already on the ſtomach will be ſufficient.

Vomits not only cleanſe the ſtomach, which in this diſeaſe is generally loaded with viſcid phlegm, but they likewiſe promote the perſpiration and other ſecretions, and ought therefore to be repeated according to the obſtinacy of the diſeaſe. They ſhould not however be ſtrong; gentle vomits frequently repeated, are both leſs dangerous, and more beneficial, than ſtrong ones.

The body ought to be kept gently open. The beſt medicines for this purpoſe are rhubarb and its

* See Appendix, *Vomiting Julep.*

preparations, as the ſyrup, tincture, &c. Of theſe a tea-ſpoonful or two may be given to an infant twice or thrice a-day, as there is occaſion. To ſuch as are farther advanced, the doſe muſt be proportionally increaſed, and repeated till it has the deſired effect. Thoſe who cannot be brought to take the bitter tincture, may have an infuſion of ſenna and prunes, ſweetened with manna, coarſe ſugar, or honey; or a few grains of rhubarb mixed with a tea-ſpoonful or two of ſyrup, or currant-jelly, ſo as to diſguiſe the taſte. Moſt children are fond of ſyrups and jellies, and ſeldom refuſe even a diſagreeable medicine when mixed with it.

Many people believe that oily, pectoral, and balſamic medicines poſſeſs wonderful virtues for the cure of the chin-cough, and accordingly exhibit them plentifully to patients of every age and conſtitution, without conſidering that every thing of this nature muſt load the ſtomach, hurt the digeſtion, and of courſe aggravate the diſorder. *

Opiates are ſometimes neceſſary to allay the violence of the cough. For this purpoſe five, ſix, or ſeven drops of laudanum, according to the age of the patient, may be taken in a little ſugar or water, and repeated occaſionally. †

* Dr. Duplanil ſays he has ſeen many good effects from the kermes mineral in this complaint, the cough being frequently alleviated even by the firſt doſe. The doſe for a child of one year old, is a quarter of a grain diſſolved in a cup of any liquid, repeated two or three times a-day. For a child of two years the doſe is half a grain; and the quantity muſt be thus increaſed in proportion to the age of the patient.

† Some recommend the extract of hemlock as an extraordinary remedy in the whooping-cough; but ſo far as I have been able to obſerve, it is no way ſuperior to opium, which, when properly adminiſtered, will often relieve ſome of the moſt troubleſome ſymptoms of this diſorder; but opium ſhould be given very cautiouſly, if there is any difficulty of breathing from phlegm.

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The garlic-ointment is a well known remedy in North-Britain for the chin-cough. It is made by beating in a mortar garlic with an equal quantity of hog's lard. With this the ſoles of the feet may be rubbed twice or thrice a-day; but the beſt method is to ſpread it upon a rag, and apply it in the form of plaſter. It ſhould be renewed every night and morning at leaſt, as the garlic ſoon loſes its virtue. This is an exceeding good medicine, both in the chin-cough, and in moſt other coughs of an obſtinate nature. It ought not, however, to be uſed when the patient is very hot or feveriſh, leſt it ſhould increaſe theſe ſymptoms.

The feet ſhould be bathed once every two or three days in lukewarm water; and a Burgundy-pitch plaſter kept conſtantly between the ſhoulders. But when the diſeaſe proves very violent, it will be neceſſary, inſtead of it, to apply a bliſtering-plaſter, and to keep the part open for ſome time with iſſue-ointment.

When the diſeaſe is prolonged, and the patient is free from a fever, the Peruvian bark, and other bitters, are the moſt proper medicines. The bark may either be taken in ſubſtance, or in a decoction or infuſion, as is moſt agreeable. For a child, ten, fifteen, or twenty grains, according to the age of the patient, may be given three or four times a-day. For an an adult, half a drachm or two ſcruples will be proper. Some give the extract of the bark with cantharides; but to manage this requires a conſiderable attention. It is more ſafe to give a few grains of caſtor along with the bark. A child of ſix or ſeven years of age may take ſeven or eight grains of caſtor, with fifteen grains of powdered bark, for a doſe. This may be made into a mixture, with two or three ounces of a ſimple diſtilled water, and a little ſyrup, and taken three or four times a-day.

CHAP. XXXI.

Inflammation of the Stomach, and other Viſcera.

ALL inflammations of the bowels are dangerous, and require the moſt ſpeedy aſſiſtance; as they frequently end in a ſuppuration, and ſometimes in a mortification, which is certain death.

CAUSES.—An inflammation of the ſtomach may proceed from any of the cauſes which produce an inflammatory fever; as cold liquor drank while the body is warm, obſtructed perſpiration, or the ſudden ſtriking in of any eruption. It may likewiſe proceed from the acrimony of the bile, or from acrid and ſtimulating ſubſtances taken into the ſtomach; as ſtrong vomits or purges, corroſive poiſons, and ſuch like. When the gout has been repelled from the extremities, either by cold or improper applications, it often occaſions an inflammation of the ſtomach. Hard or indigeſtible ſubſtances taken into the ſtomach, as bones, the ſtones of fruit, &c. may likewiſe have that effect.

SYMPTOMS.—It is attended with a fixed pain and burning heat in the ſtomach; great reſtleſſneſs and anxiety; a ſmall, quick, and hard pulſe; vomiting, or, at leaſt, a naufea and ſickneſs; exceſſive thirſt; coldneſs of the extremities; difficulty of breathing; cold clammy ſweats; and ſometimes convulſions and fainting fits. The ſtomach is ſwelled, and often feels hard to the touch. One of the moſt certain ſigns of this diſeaſe is the ſenſe of pain, which the patient feels upon taking any kind of food or drink, eſpecially if it be either too hot or too cold.

When

When the patient vomits every thing he eats or drinks, is extremely reſtleſs, has a hiccup, with an intermitting pulſe, and frequent fainting fits, the danger is very great.

REGIMEN.—All acrimonious, heating, and irritating food and drink are carefully to be avoided. The weakneſs of the patient may deceive the byſtanders, and induce them to give him wines, ſpirits, or other cordials; but theſe never fail to increaſe the diſeaſe, and often occaſion ſudden death. The inclination to vomit may likewiſe impoſe on the attendants, and make them think a vomit neceſſary; but that too is almoſt certain death.

The food muſt be light, thin, cool, and eaſy of digeſtion. It muſt be given in ſmall quantities, and ſhould neither be quite cold nor too hot. Thin gruel made of barley or oatmeal, light toaſted bread diſſolved in boiling water, or very weak chicken-broth, are the moſt proper. The drink ſhould be clear whey, barley-water, water in which toaſted bread has been boiled, or decoctions of emollient vegetables; as liquorice and marſhmallow roots, &c.

MEDICINE.—Bleeding in this diſeaſe is abſolutely neceſſary, and is almoſt the only thing that can be depended on. When the diſeaſe proves obſtinate, it will often be proper to repeat this operation ſeveral times, nor muſt the low ſtate of the pulſe deter us from doing ſo. The pulſe indeed generally riſes upon bleeding, and as long as that is the caſe, the operation is ſafe.

Frequent fomentations with lukewarm water, or a decoction of emollient vegetables, are likewiſe beneficial. Flannel cloths dipped in theſe muſt be applied to the region of the ſtomach, and removed as they grow cool. They muſt neither be applied too warm, nor be ſuffered to continue till they become

come quite cold, as either of theſe extremities would aggravate the diſeaſe.

The feet and legs ought likewiſe to be frequently bathed in lukewarm water, and warm bricks or pouſtices may be applied to the ſoles of the feet. The warm bath, if it can be conveniently uſed, will be of great ſervice.

In this, and all other inflammations of the bowels, an epiſpaſtic, or bliſtering-plaſter, applied over the part affected, is one of the beſt remedies I know. I have often uſed it, and do not recollect one inſtance wherein it did not give relief to the patient.

The only internal medicines which we ſhall venture to recommend in this diſeaſe, are mild clyſters. Theſe may be made of warm water, or thin water-gruel; and if the patient is coſtive, a little ſweet oil, honey, or manna, may be added. Clyſters anſwer the purpoſe of an internal fomentation, while they keep the body open, and at the ſame time nouriſh the patient, who is often in this diſeaſe unable to retain any food upon his ſtomach. For theſe reaſons they muſt not be neglected, as the patient's life may depend on them.

INFLAMMATION OF THE INTESTINES.

This is one of the moſt painful and dangerous diſeaſes that mankind is liable to. It generally proceeds from the ſame *cauſes* as the inflammation of the ſtomach; to which may be added coſtiveneſs, worms, eating unripe fruits, or great quantities of nuts, drinking hard windy malt liquors, as ſtale bottled beer or ale, ſour wine, cyder, &c. It may likewiſe be occaſioned by a rupture, by ſcirrhous tumors of the inteſtines, or by their oppoſite ſides growing together.

The

The inflammation of the inteſtines is denominated *Iliac paſſion*, *Enteritis*, *&c.* according to the names of the parts affected. The treatment, however, is nearly the ſame whatever part of the inteſtinal canal be the ſeat of the diſeaſe; we ſhall therefore omit theſe diſtinctions leſt they ſhould perplex the reader.

The *ſymptoms* here are nearly the ſame as in the foregoing diſeaſe; only the pain, if poſſible, is more acute, and is ſituated lower. The vomiting is likewiſe more violent, and ſometimes even the excrements, together with the clyſters, are diſcharged by the mouth. The patient is continually belching up wind, and has often an obſtruction of his urine.

While the pain ſhifts, and the vomiting only returns at certain intervals, and while the clyſters paſs downwards, there is ground for hope; but when the clyſters and *fæces* are vomited, and the patient is exceedingly weak, with a low fluttering pulſe, a pale countenance, and a diſagreeable or ſtinking breath, there is great reaſon to fear that the conſequences will prove fatal. Clammy ſweats, black fœtid ſtools, with a ſmall intermitting pulſe, and a total ceſſation of pain, are ſigns of a mortification already begun, and of approaching death.

REGIMEN.—The regimen in this diſeaſe is in general the ſame as in an inflammation of the ſtomach. The patient muſt be kept quiet, avoiding cold, and all violent paſſions of the mind. His food ought to be very light, and given in ſmall quantities; his drink weak and diluting; as clear whey, barley-water, and ſuch like. *

MEDICINE.—Bleeding in this, as well as in the inflammation of the ſtomach, is of the greateſt im-

* Indeed we can give very little food, either liquid or ſolid, in this diſeaſe, until the moſt dangerous ſymptoms, eſpecially vomiting, are ſubdued.

portance.

portance. It ſhould be performed as ſoon as the ſymptoms appear, and muſt be repeated according to the ſtrength of the patient, and the violence of the diſeaſe.

A bliſtering-plaſter is here likewiſe to be applied immediately over the part where the moſt violent pain is. This not only relieves the pain of the bowels, but even clyſters and purgative medicines, which before had no effect, will operate when the bliſter begins to riſe.

Fomentations and laxative clyſters are by no means to be omitted. The patient's feet and legs ſhould frequently be bathed in warm water; and cloths dipped in it applied to his belly. Bladders filled with warm water may likewiſe be applied to the region of the navel, and warm bricks, or bottles filled with warm water, to the ſoles of the feet. The clyſters may be made of barley-water or thin gruel with ſalt, and ſoftened with ſweet oil or freſh butter. Theſe may be adminiſtered every two or three hours, or oftener, if the patient continues coſtive.

If the diſeaſe does not yield to clyſters and fomentations, recourſe muſt be had to pretty ſtrong purgatives; but as theſe, by irritating the bowels, often increaſe their contraction, and by that means fruſtrate their own intention, it will be neceſſary to join them with opiates, which, by allaying the pain, and relaxing the ſpaſmodic contractions of the guts, greatly aſſiſt the operation of purgatives in this caſe.

What anſwers the purpoſe of opening the body very well, is a ſolution of the bitter purging ſalts. Two ounces of theſe may be diſſolved in a pint of warm water, or thin gruel, and a tea-cupful of it taken every half hour till it operates. At the ſame time fifteen, twenty, or twenty-five drops of laudanum may be given in a glaſs of peppermint or ſimple cinnamon-

cinnamon-water, to appeaſe the irritation, and prevent the vomiting, &c.

Acids have often a very happy effect in ſtaying the vomiting, and appeaſing the other violent ſymptoms of this diſeaſe. It will therefore be of uſe to ſharpen the patient's drink with cream of tartar, juice of lemon, or, when theſe cannot be obtained, with vinegar.

But it often happens that no liquid whatever will ſtay on the ſtomach. In this caſe the patient muſt take purging pills. I have generally found the following anſwer very well: Take jalap in powder, and vitriolated tartar, of each half a drachm, opium one grain, Caſtile ſoap as much as will make the maſs fit for pills. Theſe muſt be taken at one doſe, and if they do not operate in a few hours, the doſe may be repeated.

If a ſtool cannot be procured by any of the above means, it will be neceſſary to immerſe the patient in warm water up to the breaſt. I have often ſeen this ſucceed when other means had been tried in vain. The patient muſt continue in the water as long as he can eaſily bear it without fainting, and if one immerſion has not the deſired effect, it may be repeated as ſoon as the patient's ſtrength and ſpirits are recruited. It is more ſafe for him to go frequently into the bath, than to continue too long at a time, and it is often neceſſary to repeat it ſeveral times before it has the deſired effect.

It has ſometimes happened, after all other means of procuring a ſtool has been tried to no purpoſe, that this was brought about by immerſing the patient's lower extremities in cold water, or making him walk upon a wet pavement, and daſhing his legs, thighs, and body, with the cold water. This method, when others fail, at leaſt merits a trial.

If the diſeaſe proceed from a rupture, the patient muſt be laid with his head very low, and the inteſtines returned by gentle preſſure with the hand. If this, with fomentations and clyſters, ſhould not ſucceed, recourſe muſt be had to a ſurgical operation, which may give the patient relief.

Such as would avoid this excruciating and dangerous diſeaſe, muſt take care never to be too long without a ſtool. Some who have died of it have had ſeveral pounds of hard dry *fæces* taken out of their guts. They ſhould likewiſe beware of eating too freely of ſour or unripe fruits, or drinking ſtale windy liquors, &c. It likewiſe proceeds frequently from cold caught by wet clothes, &c. but eſpecially from wet feet.

OF THE COLIC.

The colic has a great reſemblance to the two preceding diſeaſes, both in its ſymptoms and method of cure. It is generally attended with coſtiveneſs and acute pain of the bowels; and requires diluting diet, evacuations, fomentations, &c.

Colics are variouſly denominated according to their cauſes, as the *flatulent*, the *bilious*, the *hyſteric*, the *nervous*, &c. As each of theſe requires a particular method of treatment, we ſhall point out their moſt general ſymptoms, and the means to be uſed for their relief.

The *flatulent*, or wind-colic, is generally occaſioned by the indiſcreet uſe of unripe fruits, meats of hard digeſtion, windy vegetables, fermenting liquors, and ſuch like. It may likewiſe proceed from an obſtructed perſpiration, or catching cold. Delicate people, whoſe digeſtive powers are weak, are moſt liable to this kind of colic.

The

The flatulent colic may either affect the ſtomach or inteſtines. It is attended with a painful ſtretching of the affected part. The patient feels a rumbling in his bowels, and is generally relieved by a diſcharge of wind, either upwards or downwards. The pain is ſeldom confined to any particular part, as the vapour wanders from one diviſion of the bowels to another till it finds a vent.

When the diſeaſe proceeds from windy liquor, green fruit, ſour herbs, or the like, the beſt medicine on the firſt appearance of the ſymptoms is a dram of brandy, gin, or any good ſpirits. The patient ſhould likewiſe ſit with his feet upon a warm hearth-ſtone, or apply warm bricks to them; and warm cloths may be applied to his ſtomach and bowels.

This is the only colic wherein ardent ſpirits, ſpiceries, or any thing of a hot nature, may be ventured upon. * Nor indeed are they to be uſed here unleſs at the very beginning, before any ſymptoms of inflammation appear. We have reaſon to believe, that a colic occaſioned by wind or flatulent food might always be cured by ſpirits or warm liquors, if they were taken immediately upon perceiving the firſt uneaſineſs; but when the pain has continued for a conſiderable time, and there is reaſon to fear an inflammation of the bowels is already begun, all hot things are to be avoided as poiſon, and the patient is to be treated in the ſame manner as for the inflammation of the inteſtines.

Several kinds of food, as honey, eggs, &c. occaſion colics in ſome particular conſtitutions. I have

* I believe there is never a neceſſity of uſing ſpirits in this caſe—A glaſs of mint-water, or mint, ginger, or penny-royal tea, would always anſwer the purpoſe.

generally

generally found the beſt method of cure for theſe was to drink plentifully of ſmall diluting liquors, as water-gruel, ſmall poſſet, water with toaſted bread ſoaked in it, &c.

Colics which proceed from exceſs and indigeſtion generally cure themſelves by occaſioning vomiting or purging. Theſe diſcharges are by no means to be ſtopped, but promoted by drinking plentifully of warm water, or weak poſſet. When their violence is over, the patient may take a doſe of rhubarb, or any other gentle purge, to carry off the dregs of his debauch.

Colics which are occaſioned by wet feet, or catching cold, may generally be removed at the beginning, by bathing the feet and legs in warm water, and drinking ſuch warm diluting liquors as will promote the perſpiration, as weak wine-whey, or water-gruel, with a ſmall quantity of wine in it.

Thoſe flatulent colics, which prevail ſo much among country people, might generally be prevented were they careful to change their clothes when they get wet. They ought likewiſe, after eating any kind of green traſh, to take a glaſs of good peppermint water, which will have nearly the ſame effect as a glaſs of brandy, and is to be preferred.

The *bilious* colic is attended with very acute pains about the region of the navel. The patient complains of great thirſt, and is generally coſtive. He vomits a hot, bitter, yellow-coloured bile, which being diſcharged, ſeems to afford ſome relief, but is quickly followed by the ſame violent pain as before. As the diſtemper advances, the propenſity to vomit ſometimes increaſes ſo as to become almoſt continual, and the proper motion of the inteſtines is ſo far perverted, that there are all the ſymptoms of an impending iliac paſſion.

If the patient be young and ſtrong, and the pulſe full and frequent, it will be proper to bleed, after which gliſters may be adminiſtered. Clear whey or gruel, ſharpened with the juice of lemon, or cream of tartar, muſt be drank freely. Small chicken-broth, with a little manna diſſolved in it, or a ſlight decoction of tamarinds, are likewiſe very proper, or any other thin, acid, opening liquor.

Beſides bleeding and plentiful dilution, it will be neceſſary to foment the belly with cloths dipped in warm water, and if this ſhould not ſucceed, the patient muſt be immerſed up to the breaſt in warm water.

In the bilious colic the vomiting is often very difficult to reſtrain. When this happens the patient may drink a decoction of toaſted bread, or toaſted oats, or an infuſion of mint in boiling water. Should theſe not have the deſired effect, the ſaline draught, with a few drops of laudanum in it, may be given, and repeated according to the urgency of the ſymptoms. A ſmall quantity of Venice treacle may be ſpread in form of a cataplaſm, and applied to the pit of the ſtomach. Clyſters with a proper quantity of Venice treacle or liquid laudanum in them, may likewiſe be frequently adminiſtered.

Such as are liable to frequent returns of the bilious colic ſhould uſe fleſh ſparingly, and live chiefly upon a light vegetable diet. They ſhould likewiſe take frequently a doſe of cream of tartar with tamarinds, or any other cool acid purge.

The *hyſteric* colic bears a great reſemblance to the bilious. It is attended with acute pains about the region of the ſtomach, vomiting, &c. But what the patient vomits in this caſe is commonly of a greeniſh colour. There is a great ſinking of the ſpirits, with a dejection of mind and difficulty of breathing, which are the characteriſtic ſymptoms of

this diſorder. Sometimes it is accompanied with the jaundice, but this generally goes off of its own accord in a few days.

In this colic, all evacuations, as bleeding, purging, vomiting, &c. do hurt. Every thing that weakens the patient, or ſinks his ſpirits, is to be avoided. If, however, the vomiting ſhould prove violent, lukewarm water, or ſmall poſſet, may be drank to cleanſe the ſtomach. Afterwards the patient may take fifteen, twenty, or twenty-five drops of liquid laudanum in a glaſs of cinnamon-water. This may be repeated every ten or twelve hours till the ſymptoms abate.

The patient may likewiſe take four or five of the fœtid pills every ſix hours, and drink a cup of penny-royal tea after them. If aſafœtida ſhould prove diſagreeable, which is ſometimes the caſe, a tea-ſpoonful of the tincture of caſtor in a cup of penny-royal tea, or thirty or forty drops of the balſam of Peru dropped upon a bit of loaf-ſugar, may be taken in its ſtead. The anti-hyſteric plaſter may alſo be uſed, which has often a good effect.*

The *nervous* colic prevails among miners, ſmelters of lead, plumbers, the manufacturers of white-lead, &c. It is very common in the cyder countries of England, and is ſuppoſed to be occaſioned by the leaden veſſels uſed in preparing that liquor. It is likewiſe a frequent diſeaſe in the Weſt Indies, where it is termed the dry belly-ache.

No diſeaſe of the bowels is attended with more excruciating pain than this. Nor is it ſoon at an end. I have known it continue eight or ten days with very little intermiſſion, the body all the while continuing bound in ſpite of medicine, yet at length yield,

* See Appendix, *Anti-hyſteric, or ſtomach-plaſter.*

and

and the patient, recover*. It generally however leaves the patient weak, and often ends in a palſy.

The general treatment of this diſeaſe is ſo nearly the ſame with that of the iliac paſſion, or inflammation of the guts, that we ſhall not inſiſt upon it. The body is to be opened by mild purgatives given in ſmall doſes, and frequently repeated, and their operation muſt be aſſiſted by ſoft oily clyſters, fomentations, &c. The caſtor oil is reckoned peculiarly proper in this diſeaſe. It may both be mixed with the clyſters and given by the mouth. The warm bath generally gives great relief.

The Barbadoes tar is ſaid to be an efficacious medicine in this complaint. It may be taken to the quantity of two drachms three times a day, or oftener if the ſtomach will bear it. This tar, mixed with an equal quantity of ſtrong rum, is likewiſe proper for rubbing the ſpine, in caſe any tingling, or other ſymptoms of a palſy, are felt. When the tar cannot be obtained, the back may be rubbed with ſtrong ſpirits, or a little oil of nutmegs or of roſemary.

If the patient remains weak and languid after this diſeaſe, he muſt take exerciſe on horſeback, and uſe an infuſion of the Peruvian bark in wine. When the diſeaſe ends in a palſy, the warm-ſprings are found to be extremely proper.

To avoid this kind of colic, people muſt ſhun all ſour fruits, acids, and auſtere liquors, &c. Thoſe

* As the ſmoke of tobacco thrown into the bowels will often procure a ſtool when all other means have failed, an apparatus for this purpoſe ought to be kept by every ſurgeon. It may be purchaſed at a ſmall expence, and will be of ſervice in ſeveral other caſes, as the recovery of drowned perſons, &c.—A table-ſpoonful of muſtard-ſeed a little bruiſed and given every two or three hours, will ſometimes open the bowels when every thing elſe has failed.

who work in lead ought never to go to their buſineſs faſting, and their food ſhould be oily or fat. They may take a glaſs of ſalad oil every morning. Liquid aliment is beſt for them; as fat broths, &c. but low living is bad. They ſhould frequently go a little out of the tainted air; and ſhould never ſuffer themſelves to be coſtive. In the Weſt Indies, and on the coaſt of Guinea, it has been found of great uſe, for preventing this colic, to wear a piece of flannel round the waiſt, and to drink an infuſion of ginger by way of tea.

Sundry other kinds of this diſeaſe might be mentioned, but too many diſtinctions would tend only to perplex the reader. Thoſe already mentioned are the moſt material, and ſhould indeed be attended to, as their treatment is very different. But even perſons who are not in a condition to diſtinguiſh very accurately in theſe matters, may nevertheleſs be of great ſervice to patients in colics of every kind, by only obſerving the following general rules, *viz.* To bathe the feet and legs in warm water; to apply bladders filled with warm water, or cloths dipped in it, to the ſtomach and bowels: to make the patient drink freely of diluting mucilaginous liquors; and to give him an emollient clyſter every two or three hours. Should theſe not ſucceed, the patient ought to be immerſed in warm water; and in almoſt every caſe of colic, except where inflammation is preſent, the chief remedy, in the firſt inſtance, where the pain is violent, is laudanum—from twenty to twenty-five drops may be given every hour in a little ſugar and water, until the pain abates—when we ſuſpect inflammation the laudanum in doſes of ten drops in the camphor mixture*—and when there are ſymptoms

* See Appendix, *Camphor Mixture.*

of

of hyſteria, the ſame quantity in a tea-ſpoonful of fetid tincture.

INFLAMMATION OF THE KIDNEYS.

CAUSES.——This diſeaſe may proceed from any of thoſe cauſes which produce an inflammatory fever. It may likewiſe be occaſioned by wounds or bruiſes of the kidneys; ſmall ſtones or gravel lodging within them; by ſtrong diuretic medicines; as ſpirits of turpentine, tincture of cantharides, &c. Violent motion, as hard riding or walking, eſpecially in hot weather, or whatever drives the blood too forcibly into the kidneys, may occaſion this malady. It may likewiſe proceed from lying too ſoft, too much on the back, involuntary contractions, or ſpaſms, in the urinary veſſels, &c. alſo from the miſplaced gout.

SYMPTOMS.—There is a ſharp pain about the region of the kidneys, with ſome degree of fever, and a ſtupor or dull pain in the thigh of the affected ſide. The urine is at firſt clear, and afterwards of a reddiſh colour; but in the worſt kind of the diſeaſe it generally continues pale, is paſſed with difficulty, and commonly in ſmall quantities at a time. The patient feels great uneaſineſs when he endeavours to walk or ſit upright. He lies with moſt eaſe on the affected ſide, and has generally a nauſea or vomiting, reſembling that which happens in the colic.

This diſeaſe, however, may be diſtinguiſhed from the colic by the pain being ſeated farther back, and by the difficulty of paſſing urine with which it is conſtantly attended.

REGIMEN.—Every thing of a heating or ſtimulating nature is to be avoided. The food muſt be thin and light; as panada, ſmall broths, with mild vegetables and the like. Emollient and thin liquors

muſt be plentifully drank; as clear whey, or balm-tea ſweetened with honey, decoctions of marſh-mallow roots, with barley and liquorice, &c. The patient, notwithſtanding the vomiting, muſt conſtantly keep ſipping ſmall quantities of theſe or other diluting liquors. Nothing ſo ſafely and certainly abates the inflammation, and expels the obſtructing cauſe, as copious dilution. The patient muſt be kept eaſy, quiet, and free from cold, as long as any ſymptoms of inflammation remain.

MEDICINE.—Bleeding is generally neceſſary, eſpecially at the beginning. Ten or twelve ounces may be let from the arm or foot with a lancet, and if the pain and inflammation continue, the operation may be repeated in twenty-four hours, or ſooner, eſpecially if the patient be of a full habit. Indeed there are few caſes which require more copious bleeding. Leeches may likewiſe be applied to the hæmorrhoidal veins, as a diſcharge from theſe will greatly relieve the patient.

Cloths dipped in warm-water, or bladders filled with it, muſt be applied as near as poſſible to the part affected, and renewed as they grow cool.

Emollient clyſters ought frequently to be adminiſtered; and if theſe do not open the body, a little ſalt and honey, or manna, may be added to them.

The ſame courſe is to be followed where gravel or a ſtone is lodged in the kidney, but when the gravel or ſtone is ſeparated from the kidney, and lodges in the Ureter*, it will be proper, beſides the fomentations, to rub the ſmall of the back with ſweet oil, and to give gentle diuretics; a tea-ſpoonful of the ſweet ſpirits of nitre, with a few drops of laudanum,

* The Ureters are two long and ſmall canals, one on each ſide, which carry the urine from the baſon of the kidneys to the bladder. They are ſometimes obſtructed by ſmall ſtones of gravel falling down from the kidneys, and lodging in them.

may

may now and then be put into a cup of the patient's drink: the warm bath and opium are here of great ſervice.

When the diſeaſe is protracted beyond the ſeventh or eighth day, and the patient complains of a ſtupor and heavineſs of the part, has frequent returns of chilline ſs, ſhivering, &c. there is reaſon to ſuſpect that matter is forming in the kidney, and that an abſceſs will enſue.

When matter in the urine ſhews that an ulcer is already formed in the kidney, the patient muſt be careful to abſtain from all acrid, ſour, and ſalted proviſions, and to live chiefly upon mild mucilaginous herbs and fruits, together with the broth of animals, made with barley and common pot herbs, &c. His drink may be whey, and butter-milk that is not ſour. The latter is by ſome reckoned a ſpecific remedy in ulcers of the kidneys. To anſwer this character, however, it muſt be drank for a conſiderable time. Chalybeate waters have likewiſe been found beneficial in this diſeaſe. They muſt likewiſe be uſed for a conſiderable time, in order to produce any ſalutary effects.

Thoſe who are liable to frequent returns of inflammation, or obſtructions of the kidneys, muſt abſtain from wines, and their food ought to be light, and of eaſy digeſtion. They ſhould uſe moderate exerciſe, and ſhould not lie too hot, nor too much on their back.

INFLAMMATION OF THE BLADDER.

The inflammation of the bladder proceeds, in a great meaſure, from the ſame cauſes as that of the kidneys. It is known by an acute pain towards the bottom of the belly, and difficulty of paſſing urine, with ſome degree of fever, a conſtant incli-

nation to go to ſtool, and a perpetual deſire to make water.

This diſeaſe muſt be treated on the ſame principles as the one immediately preceding. The diet muſt be light and thin, and the drink of a cooling nature. Bleeding is very proper at the beginning, and in robuſt conſtitutions it will often be neceſſary to repeat it. The lower part of the belly ſhould be fomented with warm water, or a decoction of mild vegetables; and emollient clyſters ought frequently to be adminiſtered, &c.

The patient ſhould abſtain from every thing that is of a hot, acrid, and ſtimulating quality, and ſhould live entirely upon ſmall broths, gruels, or mild vegetables.

A ſtoppage of urine may proceed from other cauſes beſides an inflammation of the bladder; as a ſwelling of the hæmorrhoidal veins, hard *fæces* lodged in the *rectum;* a ſtone in the bladder; excreſcences in the urinary paſſages, a palſy of the bladder, hyſteric affections, &c. Each of theſe requires a particular treatment, which does not fall under our preſent conſideration. We ſhall only obſerve, that in all of them mild and gentle applications are the ſafeſt, as ſtrong diuretic medicines, or things of an irritating nature, generally increaſe the danger. I have known ſome perſons kill themſelves by introducing probes into the urinary paſſages, to remove, as they thought, ſomewhat that obſtructed the diſcharge of urine, and others bring on a violent inflammation of the bladder, by uſing ſtrong heating medicines, as oil of turpentine, &c. for that purpoſe.

INFLAMMATION OF THE LIVER.

The liver is leſs ſubject to inflammation than moſt of the other viſcera, as in it the circulation is ſlower; but when an inflammation does happen, it is with difficulty removed, and often ends in a ſuppuration or ſcirrhus.

CAUSES.—Beſides the common cauſes of inflammation, we may here reckon the following, *viz.* exceſſive fatneſs, a ſcirrhus of the liver itſelf, violent ſhocks from ſtrong vomits when the liver was before unſound, any thing that ſuddenly cools the liver after it has been greatly heated, ſtones obſtructing the courſe of the bile, drinking ſtrong wines and ſpirituous liquors, uſing hot ſpicy aliment, obſtinate hypochondriacal affections, &c.

SYMPTOMS.—This diſeaſe is known by a painful tenſion of the right ſide under the falſe ribs, attended with more or leſs fever, a ſenſe of weight, or fulneſs of the part, difficulty of breathing, loathing of food, great thirſt, with a pale or yellowiſh colour of the ſkin and eyes.

The *ſymptoms* here are various, according to the degree of inflammation, and likewiſe according to the particular part of the liver where the inflammation happens. Sometimes the pain is ſo inconſiderable, that an inflammation is not ſo much as ſuſpected; but when it happens in the upper or convex part of the liver, the pain is more acute, the pulſe quicker, and the patient is often troubled with a dry cough, a hiccup, and a pain extending to the ſhoulder, with difficulty of lying on the left ſide, &c.

This diſeaſe may be diſtinguiſhed from the pleuriſy by the pain being leſs violent, ſeated under the falſe ribs, and by the difficulty of lying on the left ſide. It may be diſtinguiſhed from the hyſteric and hypochon-

hypochondriac diſorders by the degree of fever with which it is always attended.

This diſeaſe, if properly treated, is ſeldom mortal. A conſtant hiccuping, violent fever, and exceſſive thirſt, are bad ſymptoms. If it ends in a ſuppuration, and the matter cannot be diſcharged outwardly, the danger is great. When the ſcirrhus of the liver enſues, the patient, if he obſerves a proper regimen, may nevertheleſs live a number of years tolerably eaſy; but if he indulge in animal food and ſtrong liquors, or take medicines of an acrid or irritating nature, the ſcirrhus will be converted into a cancer, which muſt infallibly prove fatal.

REGIMEN.—The ſame regimen is to be obſerved in this as in other inflammatory diſorders. All hot things are to be carefully avoided, and cool diluting liquors, as whey, barley-water, &c. drank freely. The food muſt be light and thin, and the body, as well as the mind, kept eaſy and quiet.

MEDICINE.—Bleeding is proper at the beginning of this diſeaſe, and it will be neceſſary, if the pulſe ſhould feel hard, to repeat it. All violent purgatives are to be avoided; the body, however, muſt be kept gently open. A decoction of tamarinds, with a little honey or manna, will anſwer this purpoſe very well. The ſide affected muſt be fomented in the manner directed in the foregoing diſeaſes. Mild laxative clyſters ſhould be frequently adminiſtered; and, if the pain ſhould, notwithſtanding, continue violent, a bliſtering-plaſter may be applied over the part affected.

When there is an inclination to ſweat, it ought to be promoted, but not by warm ſudorifics. The only thing to be uſed for that purpoſe is plenty of diluting liquors drank about the warmth of the human blood. Indeed the patient in this caſe, as well

as

as in all other topical inflammations, ought to drink nothing that is colder than the blood*.

If the ſtools ſhould be looſe, and even ſtreaked with blood, no means muſt be uſed to ſtop them, unleſs they be ſo frequent as to weaken the patient. Looſe ſtools often prove critical, and carry off the diſeaſe.

If an abſceſs or impoſthume is formed in the liver, all methods ſhould be tried to make it break and diſcharge itſelf outwardly, as fomentations, the application of poultices, ripening cataplaſms, &c. Sometimes indeed the matter of an abſceſs comes away in the urine, and ſometimes it is diſcharged by ſtool; but theſe are effects of nature which no means can promote. When the abſceſs burſts into the cavity of the *abdomen* at large, death enſues; nor will the event be more favourable when the abſceſs is opened by an inciſion, unleſs in caſes where the liver adheres to the *peritonæum*, ſo as to form a bag for the matter, and prevent it from falling into the cavity of the *abdomen*; in which caſe opening the abſceſs by a ſufficiently large inciſion will probably ſave the patient's life †.

If the diſorder, in ſpite of all endeavours to the contrary, ſhould end in a ſcirrhus, the patient muſt be careful to regulate his diet, &c. in ſuch a manner as not to aggravate the diſeaſe. He muſt not in-

* The American practice is, after bleeding and purging, to give two or three grains of calomel twice a-day, until the diſeaſe is ſubdued; if this purges much, a quarter of a grain of powdered opium may be added to each doſe; if the ſymptoms are violent, from half a drachm to a drachm of mercurial ointment ſhould be rubbed into the ſide twice a-day. There are few caſes that will not yield to this treatment.

† I know a gentleman who has had ſeveral abſceſſes of the liver opened, and is now a ſtrong and healthy man, though above eighty years of age.

dulge

dulge in fleſh, fiſh, ſtrong liquors or any highly ſeaſoned or ſalted proviſions; but ſhould, for the moſt part, live on mild vegetables, as fruits and roots; taking gentle exerciſe, and drinking whey, barley-water, or butter-milk.

We ſhall take no notice of inflammations of the other viſcera. They muſt in general be treated upon the ſame principles as thoſe already mentioned. The chief rule with reſpect to all of them, is to let blood, to avoid every thing that is ſtrong, or of a heating nature, to apply warm fomentations to the part affected, and to cauſe the patient to drink a ſufficient quantity of warm diluting liquors.

CHAP. XXXII.

Of the Cholera Morbus, and other exceſſive Diſcharges from the Stomach and Bowels.

THE *cholera morbus* is a violent purging and vomiting, attended with gripes, ſickneſs, and a conſtant deſire to go to ſtool. It comes on ſuddenly, and is moſt common in ſummer and autumn.

CAUSES.—It is occaſioned by a redundancy and acrimony of the bile; cold; food that eaſily turns rancid or ſour on the ſtomach; as butter, bacon, ſweet-meats, cucumbers, melons, cherries, and other cold fruits*. It is ſometimes the effect of ſtrong acrid purges or vomits, or of poiſonous ſubſtances taken into the ſtomach. It may likewiſe proceed

* I have been twice brought to the gates of death by this diſeaſe, and both times it was occaſioned by eating rancid bacon.

from

from violent paſſions or affections of the mind; as fear, anger, &c.

SYMPTOMS.—It is generally preceded by a *cardialgia*, or heart-burn, ſour belchings, and flatulencies, with pain of the ſtomach and inteſtines. To theſe ſucceed exceſſive vomiting, and purging of green, yellow, or blackiſh coloured bile, with a diſtenſion of the ſtomach, and violent griping pains. There is likewiſe a great thirſt, with a very quick unequal pulſe, and often a fixed acute pain about the region of the navel. As the diſeaſe advances, the pulſe often ſinks ſo low as to become quite imperceptible, the extremities grow cold, or cramped, and are often covered with a clammy ſweat, the urine is obſtructed, and there is a palpitation of the heart. Violent hiccupping, fainting, and convulſions, are the ſigns of approaching death.

MEDICINE.—At the beginning of this diſeaſe the efforts of nature to expel the offending cauſe ſhould be aſſiſted, by promoting the purging and vomiting. For this purpoſe the patient muſt drink freely of diluting liquors; as whey, butter-milk, warm water, thin water-gruel, ſmall poſſet, or, what is perhaps preferable to any of them, very weak chicken broth.

After theſe evacuations have been continued for ſome time, a decoction of toaſted oats may be drank to ſtop the vomiting. The oats ſhould be toaſted 'till of a brown colour, and afterwards made into a tea. If oats cannot be had, wheat bread, or oatmeal well toaſted, may be uſed in their ſtead. If this does not put a ſtop to the vomiting, two tableſpoonfuls of the ſaline julep, made without lemon-juice, with ten drops of laudanum, may be taken every half hour, 'till it ceaſes.

The vomiting and purging however, ought never to be ſtopped too ſoon. As long as theſe diſcharges

do

do not weaken the patient, they are ſalutary, and may be allowed to go on, or rather, ought to be promoted. But, when the patient is weakened by the evacuations, which may be known from the ſinking of his pulſe, &c. recourſe muſt immediately be had to opiates, as recommended above; to which may be added ſtrong wines, with ſpirituous cinnamon-waters, and other generous cordials. Warm negus, or ſtrong wine-whey, will likewiſe be neceſſary to ſupport the patient's ſpirits and promote the perſpiration. His legs ſhould be bathed in warm water, and afterwards rubbed with flannel cloths, or wrapped in warm blankets, and warm bricks applied to the ſoles of his feet. Flannels, wrung out of warm ſpirituous fomentations, ſhould likewiſe be applied to the region of the ſtomach.

The patient's food ought to be nouriſhing, but taken in ſmall quantities, and he ſhould uſe moderate exerciſe, when able to go abroad. As the ſtomach and inteſtines are generally much weakened, an infuſion of the bark, or other bitters, in ſmall wine, ſharpened with the elixir of vitriol, may be drank for ſome time.

Though phyſicians are ſometimes not called in due time in this diſeaſe, they ought not to deſpair of relieving the patient even in the moſt deſperate circumſtances. Of this I lately ſaw a moſt ſtriking proof in an old man and his ſon, who had been both ſeized with it about the middle of the night. I did not ſee them till next morning, when they had much more the appearance of dead than of living men. No pulſe could be felt; the extremities were cold and rigid; the countenance was ghaſtly, and the ſtrength almoſt quite exhauſted. Yet from this deplorable condition they were both recovered by the uſe of opiates and cordial medicines. Indeed, opium ſeems here to be a ſovereign remedy.

OF A DIARRHŒA, OR LOOSENESS.

A looſeneſs, in many caſes, is not to be conſidered as a diſeaſe, but rather as a ſalutary evacuation. It ought, therefore, never to be ſtopped, unleſs when it continues too long, or evidently weakens the patient. As this, however, ſometimes happens, we ſhall point out the moſt common cauſes of a looſeneſs, with the proper method of treatment.

When a looſeneſs is occaſioned by catching cold, or an obſtructed perſpiration, the patient ought to keep warm, to drink freely of weak diluting liquors, to bathe his feet and legs frequently in lukewarm water, to wear flannel next his ſkin, and to take every other method to reſtore the perſpiration.

In a looſeneſs which proceeds from exceſs or repletion, a vomit is the proper medicine. Vomits not only cleanſe the ſtomach but promote all the ſecretions, which renders them of great importance in carrying off a debauch. Fifteen grains of ipecacuanha in powder, will anſwer this purpoſe very well. A day or two after the vomit, the ſame quantity of rhubarb may be taken, and repeated two or three times, if the looſeneſs continues. The patient ought to live upon light vegetable food of eaſy digeſtion, and to drink whey, thin gruel, or barley-water.

A looſeneſs, occaſioned by the obſtruction of any cuſtomary evacuation, generally requires bleeding. If that does not ſucceed, other evacuations may be ſubſtituted in the room of thoſe which are obſtructed. At the ſame time, every method is to be taken to reſtore the uſual diſcharges, as not only the cure of the diſeaſe, but the patient's life may depend on this.

A peri-

A periodical looſeneſs ought never to be ſtooped. It is always an effort of nature to carry off ſome offending matter, which, if retained in the body might have fatal effects. Children are very liable to this kind of looſeneſs, eſpecially while teething. It is, however, ſo far from being hurtful to them, that ſuch children generally get their teeth with leaſt trouble. If theſe looſe ſtools ſhould at any time prove ſour or griping, a tea-ſpoonful of magneſia alba, with four or five grains of rhubarb, may be given to the child. This, if repeated three or four times, will generally correct the acidity, and carry off the griping ſtools.

A diarrhœa, or looſeneſs, which proceeds from violent paſſions or affections of the mind, muſt be treated with the greateſt caution. Vomits, in this caſe, are highly improper. Nor are purges ſafe, unleſs they be very mild, and given in ſmall quantities. Opiates, and other antiſpaſmodic medicines, are moſt proper. Ten or twelve drops of liquid laudanum, may be taken in a cup of valerian or penny-royal tea every eight or ten hours, till the ſymptoms abate. Eaſe, cheerfulneſs and tranquillity of mind, are here of the greateſt importance.

When a looſeneſs proceeds from acrid or poiſonous ſubſtances taken into the ſtomach, the patient muſt drink large quantities of diluting liquors, with oil or fat broths to promote vomiting and purging. Afterwards, if there be reaſon to ſuſpect that the bowels are inflamed, bleeding will be neceſſary. Small doſes of laudanum may likewiſe be taken to remove their irritation.

When the gout, repelled from the extremities, occaſions a looſeneſs, it ought to be promoted by gentle doſes of rhubarb, or other mild purgatives. The gouty matter is likewiſe to be ſolicited towards the extremities by warm fomentations, cataplaſms,

&c.

&c. The perſpiration ought, at the ſame time, to be promoted by warm diluting liquors; as wine-whey, with ſpirits of hartſhorn, or a few drops of liquid laudanum, in it.

When a looſeneſs proceeds from worms, which may be known from the ſlimineſs of the ſtools, mixed with pieces of decayed worms, &c. medicines muſt be given to kill and carry off theſe vermin, as the green vitriol, with purges of rhubarb and calomel. Afterwards lime-water, either alone, or with a ſmall quantity of rhubarb infuſed, will be proper to ſtrengthen the bowels, and prevent the new generation of worms.

A looſeneſs is often occaſioned by drinking bad water. When this is the caſe, the diſeaſe generally proves endemical. When there is reaſon to believe that this, or any other diſeaſe, proceeds from the uſe of unwholeſome water, it ought immediately to be changed, or, if that cannot be done, it may be corrected by mixing it with quick-lime, chalk, or the like.

In people whoſe ſtomachs are weak, violent exerciſe immediately after eating will occaſion a looſeneſs. Though the cure of this is obvious, yet it will be proper, beſides avoiding violent exerciſe, to uſe ſuch medicines as tend to brace and ſtrengthen the ſtomach, as infuſions of the bark with other bitter and aſtringent ingredients, in white-wine. Such perſons ought likewiſe frequently to take a glaſs or two of old red port, or good claret.

From whatever cauſe a looſeneſs proceeds, when it is found neceſſary to check it, the diet ought to conſiſt of rice boiled with milk, and ſeaſoned with cinnamon; rice-jelly; ſago, with red port; and the lighter ſorts of fleſh-meat. The drink may be thin water-gruel, rice-water, beef, or chicken-broth.

Perſons who, from a peculiar weakneſs, or too great an irritability of the bowels, are liable to frequent returns of this diſeaſe, ſhould live temperately, avoiding crude ſummer fruits, all unwholeſome food, and meats of hard digeſtion. They ought likewiſe to beware of cold, moiſture, or whatever may obſtruct the perſpiration, and ſhould wear flannel next their ſkin. All violent paſſions, as fear, anger, &c. are likewiſe carefully to be guarded againſt.

OF VOMITING.

Vomiting may proceed from various cauſes, as exceſs in eating and drinking; foulneſs of the ſtomach; the acrimony of the aliment; a tranſlation of the morbific matter of ulcers, of the gout, the eryſipelas, or other diſeaſes, to the ſtomach. It may likewiſe proceed from a looſeneſs having been too ſuddenly ſtopped; from the ſtoppage of any cuſtomary evacuation, as the bleeding piles, the *menſes*, &c. from a weakneſs of the ſtomach, the colic, the iliac paſſion, a rupture, a fit of the gravel, worms; or from any kind of poiſon taken into the ſtomach. It is an uſual ſymptom of injuries done to the brain; as contuſions, compreſſions, &c. It is likewiſe a ſymptom of wounds or inflammations of the diaphragm, inteſtines, ſpleen, liver, kidneys, &c.

Vomiting may be occaſioned by unuſual motions; as ſailing, being drawn backwards in a cart or coach, &c. It may likewiſe be excited by violent paſſions, or by the idea of nauſeous and diſagreeable objects, eſpecially of ſuch things as have formerly produced vomiting. Sometimes it proceeds from a regurgitation of the bile into the ſtomach: In this caſe, what the patient vomits is generally of a yellow or greeniſh colour, and has a bitter taſte. Perſons who are ſubject to nervous affections are often ſuddenly ſeized with violent fits of vomiting. Laſtly, vomiting is a common

common ſymptom of pregnancy. In this caſe, it generally comes on about two weeks after the ſtoppage of the *menſes*, and continues during the firſt three or four months.

When vomiting proceeds from a foul ſtomach or indigeſtion, it is not to be conſidered as a diſeaſe, but as the cure of a diſeaſe. It ought, therefore, to be promoted by drinking lukewarm water, or thin gruel. If this does not put a ſtop to the vomiting, a doſe of ipecacuanha may be taken, and worked off with weak camomile-tea.

When the retroceſſion of the gout, or the obſtruction of cuſtomary evacuations, occaſion vomiting, all means muſt be uſed to reſtore theſe diſcharges; or, if that cannot be effected, their place muſt be ſupplied by others, as bleeding, purging, bathing the extremities in warm water, opening iſſues, ſetons, perpetual bliſters, &c.

When vomiting is the effect of pregnancy, it may generally be mitigated by bleeding, and keeping the body gently open. The bleeding, however, ought to be in ſmall quantities at a time, and the purgatives ſhould be of the mildeſt kind, as figs, ſtewed prunes, magneſia, manna, or ſenna. Pregnant women are moſt apt to vomit in the morning, immediately after getting out of bed, which is owing partly to the change of poſture, but more to the emptineſs of the ſtomach. It may generally be prevented by taking a diſh of coffee, tea, or ſome light breakfaſt in bed. Pregnant women who are afflicted with vomiting, ought to be kept eaſy, both in body and mind. They ſhould neither allow their ſtomachs to be quite empty, nor ſhould they eat much at once. If the ſpirits are low, and the perſon apt to faint, a ſpoonful of cinnamon water, with a little marmalade of quinces or oranges, may be taken. Vomiting, in this caſe, ſo often proceeds from irritability, that a few drops

of laudanum in mint-water, after bleeding, will generally ſtop it.

If vomiting proceeds from weakneſs of the ſtomach, bitters will be of ſervice. Peruvian bark, or Columbo root, infuſed in wine or brandy, with as much rhubarb as will keep the body gently open, is an excellent medicine in this caſe. The elixir of vitriol is alſo a good medicine. It may be taken in the doſe of fifteen or twenty drops, twice or thrice a-day, in a glaſs of water. Habitual vomitings are ſometimes alleviated by making oyſters a principal part of diet.

A vomiting, which proceeds from acidities in the ſtomach, is relieved by alkaline purges. The beſt medicine of this kind is the magneſia alba, a tea-ſpoonful of which may be taken in a diſh of tea or a little milk, three or four times a-day, or oftener if neceſſary, to keep the body open.

When vomiting proceeds from violent paſſions, or affections of the mind, all evacuations muſt be carefully avoided, eſpecially vomits. Theſe are exceedingly dangerous. The patient in this caſe ought to be kept perfectly eaſy and quiet, to have the mind ſoothed, and to take ſome gentle cordial, as negus, to which a few drops of laudanum may occaſionally be added.

When vomiting proceeds from ſpaſmodic affections of the ſtomach, muſk, caſtor, and other antiſpaſmodic medicines, are of uſe. Warm and aromatic plaſters have likewiſe a good effect. The ſtomach-plaſter of the London or Edinburgh Diſpenſatory may be applied to the pit of the ſtomach, or a plaſter of *theriaca*, which will anſwer rather better. Aromatic medicines may likewiſe be taken inwardly, as cinnamon or mint-tea, wine with ſpiceries boiled in it, &c. The region of the ſtomach may be rubbed with æther, or, if that cannot be had,

had, with ſtrong brandy or other ſpirits. The belly ſhould be fomented with warm water, or the patient immerſed up to the breaſt in a warm bath.

I have always found the ſaline draughts taken in the act of effervescence, of ſingular uſe in ſtopping a vomiting, from whatever cauſe it proceeded. Theſe may be prepared by diſſolving a drachm of the ſalt of tartar in an ounce and a half of freſh lemon juice, and adding to it an ounce of peppermint-water, the ſame quantity of ſimple cinnamon-water, and a little white ſugar. This draught muſt be ſwallowed before the effervescence is quite over, and may be repeated every two hours, or oftener, if the vomiting be violent. A violent vomiting has ſometimes been ſtopped by cupping on the region of the ſtomach after all other means had failed.

As the leaſt motion will often bring on the vomiting again, even after it has been ſtopped, the patient muſt avoid all manner of action. The diet muſt be ſo regulated as to ſit eaſy upon the ſtomach, and nothing ſhould be taken that is hard of digeſtion. We do not however mean that the patient ſhould live entirely upon ſlops. Solid food, in this caſe, often ſits eaſier on the ſtomach than liquids.

OF THE VOMITING AND PURGING OF CHILDREN.

This fatal diſeaſe ſeems peculiar to our cities*. It occurs, moſt commonly, in the months of June, July, and Auguſt, and is always moſt frequent and moſt violent in the hotteſt weather, and in children under two years of age. It ſeldom occurs violently after this age, or in the cool ſeaſons; although dentition, worms or any thing which irritates the ſtomach and inteſtines may bring it on at any time.

* In the United States of America.—This ſection, as well as the chapter on the yellow fever, being added by the American editor.

The patient is either ſeized with a violent or more moderate cholera, which is to be treated as the cholera in grown people. When the violence of it abates, diarrhœa, with an almoſt conſtant tendency to vomit, enſues; a fever, in many reſpects reſembling the remittent, comes on; the patient becomes emaciated. The ſymptoms are often very flattering, but the appetite fails, the emaciation encreaſes, the food often paſſes unchanged, great thirſt enſues, the belly ſwells and grows hard, the feet are œdematous, the child becomes very drowſy, a ſore mouth comes on, pętechiæ often appear, and death, ſooner or later, cloſes the ſcene.

This diſeaſe is often much encreaſed by the whooping-cough. It is very often attributed to teething and to worms, and there is no doubt that theſe greatly aggravate it.

To prevent, or at leaſt to mitigate, this deſtructive diſorder, experience teaches us to remove children at this age into the country during the ſummer months. If they are about cutting their teeth, which is generally the caſe, to give the proper medicines, eſpecially to have their gums lanced; if worms are ſuſpected, to uſe the remedies recommended for them, particularly calomel and ſteel; to avoid all the cauſes which produce remittents, or tend to debilitate the ſtomach, as expoſure to the ſun or night air, unripe fruit, &c. to uſe the cold bath daily, and in weakly children, a flannel ſhirt—the feet ſhould be kept warm.

When the diſeaſe exiſts, the firſt thing to be given is a ſmall doſe of rhubarb, or rhubarb and calomel, then give the anodyne laxative mixture (ſee Appendix). If this does not anſwer, uſe the infuſion of colombo, with a little tincture of cinnamon and laudanum; or, if the diarhœa is violent, a ſmall quantity of alum with laudanum may be given, or of the tincture or infuſion of kino in the ſame manner.

It

It is ſuppoſed that a plaſter made of Venice treacle, and a few drops of the oil of mint, applied directly to the region of the ſtomach, is of great ſervice. The Peruvian bark given in the form of mixture, decoction, or infuſion, is often a very uſeful medicine, when the ſtomach will bear it.

For diet, uſe thin ſago-gruel, wine-whey, clear broth, rice-water, and ſalt meat, ſalt fiſh, and good cheeſe, when the patient will take them.

Baths of warm wine and brandy have been often found to be very beneficial when the patient was much reduced. When the child drinks it ſwallows greedily, and of courſe ſoon throws it up: this might be prevented by reſtricting it to a ſmall quantity at a time. Cold water is generally craved, but it ſhould always have a toaſt in it. At night children will drink any thing, though they will not in the day. If lime or lemon-juice is mixed with a little boiling water, and more water is added, and the whole ſweetened with loaf-ſugar, a moſt agreeable and uſeful drink is made. Port wine or claret and water are alſo very proper. The abſurd practice of giving brandy or rum and water is as improper here as in all other caſes.

But the chief remedy is yet to be mentioned—this is a change of air; and, were children removed into the country, in any reaſonable time after the attack, we may venture to aſſert, that this diſeaſe would ſeldom prove fatal, It is almoſt impoſſible to ſay when it is too late to remove them; it would be better to lay it down as a rule, that it is never too late to attempt it.

Thoſe who cannot be removed into the country ſhould be taken out a riding once or twice a-day, and even when in the country this exerciſe is very neceſſary. Thoſe who cannot take their children a riding, ſhould carry them out of town daily in the

afternoon. A compliance with these directions is so absolutely necessary, that without it medicines are seldom of any service.

CHAP. XXXIII.

Of the Diabetes, and other Disorders of the Kidneys and Bladder.

THE diabetes is a frequent and excessive discharge of urine. It is seldom to be met with among young people; but often attacks persons in the decline of life, especially those who follow the more violent employments, or have been hard drinkers in their youth.

CAUSES.—A diabetes is often the consequence of acute diseases, as fevers, fluxes, &c. where the patient has suffered by excessive evacuations; it may also be occasioned by great fatigue, as riding long journies upon a hard-trotting horse, carrying heavy burdens, running, &c. It may be brought on by hard drinking, or the use of strong stimulating diuretic medicines, as tincture of cantharides, spirits of turpentine, and such like. It is sometimes brought on by long exposure to cold and damp. It is often the effect of drinking too great quantities of mineral waters. Many imagine that these will do them no service unless they be drank in great quantities, by which mistake it often happens that they occasion worse diseases than those they were intended to cure. In a word, this disease may either proceed from too great a laxity of the organs which secrete the urine, from something that stimulates the kindeys too much,

or

or from a thin diſſolved ſtate of the blood, which makes too great a quantity of it run off by the urinary paſſages.

SYMPTOMS.——In a diabetes the urine generally exceeds in quantity all the liquid food which the patient takes. It is thin and pale, moſt commonly of a ſweetiſh taſte, and an agreeable ſmell. The patient has a continual thirſt, with ſome degree of fever; his mouth is dry, and he ſpits frequently a frothy ſpittle. The ſtrength fails, the appetite decays, and the fleſh waſtes away till the patient is reduced to ſkin and bone. There is a heat of the bowels; and frequently the loins, teſticles, and feet are ſwelled.

This diſeaſe may be often cured at the beginning; but after it has continued long, the cure becomes very difficult. In drunkards, and very old people, a perfect cure is hardly to be expected.

REGIMEN.——Every thing that ſtimulates the urinary paſſages, or tends to relax the habit, muſt be avoided. For this reaſon the patient ſhould live chiefly on ſolid food. His thirſt may be quenched with acids; as ſorrel, juice of lemon, or vinegar. The mucilaginous vegetables, as rice, ſago, tapioca, and ſalep, with milk, are the moſt proper food. Of animal ſubſtances, ſhell-fiſh are to be preferred; as oyſters, crabs, &c.

The drink may be Briſtol-water. When that cannot be obtained, lime-water, in which a due proportion of oak-bark has been macerated, may be uſed. The white decoction*, with iſinglaſs diſſolved in it, is likewiſe a very proper drink.

The patient ought daily to take exerciſe, but it ſhould be ſo gentle as not to fatigue him. He ſhould lie upon a hard bed or mattreſs. Nothing hurts the

* See Appendix, *White Decoction.*

kidneys

kidneys more than lying too ſoft. A warm dry air, the uſe of the fleſh-bruſh, and every thing that promotes perſpiration, is of ſervice. For this reaſon the patient ought to wear flannel next his ſkin. A large ſtrengthening plaſter may be applied to the back.

MEDICINE.—Gentle purges, if the patient be not too much weakened by the diſeaſe, have a good effect. They may conſiſt of rhubarb, with cardamom ſeeds, or any other ſpiceries, infuſed in wine, and may be taken in ſuch quantities as to keep the body gently open.

The patient muſt next have recourſe to aſtringents and corroborants. One ſcruple of powder of alum may be taken four times a-day, or oftener, if the ſtomach will bear it.

If the patient's ſtomach cannot bear the alum in ſubſtance, whey may be made of it, and taken in the doſe of a tea-cupful three or four times a-day. The alum-whey is prepared by boiling two quarts of milk over a ſlow fire, with three drachms of alum, till the curd ſeparates.

Opiates are of ſervice in this diſeaſe, even though the patient reſts well. They take off ſpaſm and irritation and at the ſame time leſſen the force of the circulation. Ten or twelve drops of liquid laudanum may be taken in a cup of the patient's drink three or four times a-day.

The beſt corroborants which we know, are the Peruvian bark and wine. A drachm of bark may be taken in a glaſs of red port or claret three times a-day. The medicine will be both more efficacious and leſs diſagreeable, if fifteen or twenty drops of the acid elixir of vitriol be added to each doſe. Such as cannot take the bark in ſubſtance may uſe the decoction, mixed with an equal quantity of red wine, and ſharpened as above.

There

There is a diſeaſe incident to many people in the decline of life, called *an INCONTINENCY of urine*. But this is very different from a diabetes, as the water paſſes off involuntarily by drops, and does not exceed the uſual quantity. This diſeaſe is rather troubleſome than dangerous. It is owing to a relaxation of the ſpincter of the bladder, and is often the effect of a palſy. Sometimes it proceeds from hurts, or injuries occaſioned by blows, bruiſes, preternatural labours, &c. Sometimes it is the effect of a fever. It may likewiſe be occaſioned by a long uſe of ſtrong diuretics.

This diſeaſe may be mitigated by the uſe of aſtringent and corroborating medicines, ſuch as have been mentioned above, and by a bliſter to the loweſt part of the back bone.

In an incontinency of urine, from whatever cauſe, a piece of ſponge ought to be worn, or a bladder applied in ſuch a manner as to prevent the urine from galling and excoriating the parts.

OF A SUPPRESSION OF URINE.

It has already been obſerved, that a ſuppreſſion of urine may proceed from various cauſes; as an inflammation of the kidneys, or bladder; ſmall ſtones or gravel lodging in the urinary paſſages, hard *fæces* lying in the *rectum*, pregnancy, a ſpaſm or contraction of the neck of the bladder, clotted blood in the bladder itſelf, a ſwelling of the hæmorrhoidal veins, &c.

Some of theſe caſes require the catheter, both to remove the obſtructing matter, and to draw off the urine; but as this inſtrument can only be managed with ſafety by perſons ſkilled in ſurgery, we ſhall ſay nothing farther of its uſe. A bougie may be uſed by any cautious hand, and will often ſucceed better than the catheter.

We

We would chiefly recommend, in all obſtructions of urine, fomentations and evacuations. Bleeding, as far as the patient's ſtrength will permit, is neceſſary, eſpecially where there are ſymptoms of topical inflammation. Bleeding in this caſe not only abates the fever, by leſſening the force of the circulation, but, by relaxing the ſolids, it takes off the ſpaſm or ſtricture upon the veſſels which occaſioned the obſtruction. Opiates ſhould be uſed if there is any pain.

After bleeding, fomentations muſt be uſed. Theſe may either conſiſt of warm water alone, or of decoctions of mild vegetables; as mallows, camomile-flowers &c. Cloths dipped in theſe may either be applied to the part affected, or a large bladder filled with the decoction, may be kept continually upon it. Some put the herbs themſelves into a flannel-bag, and apply them to the part, which is far from being a bad method. Theſe continue longer warm than cloths dipped in the decoction, and at the ſame time keep the part equally moiſt. Sitting in warm water is alſo a very important remedy.

In all obſtructions of urine, the body ought to be kept open. This is not, however, to be attempted by ſtrong purgatives, but by emollient clyſters, or gentle infuſions of ſenna and manna. Clyſters in this caſe not only open the body, but anſwer the purpoſe of an internal fomentation, and greatly aſſiſt in removing the ſpaſms of the bladder and parts adjacent.

The food muſt be light, and taken in ſmall quantities. The drink may be weak broth, or decoctions and infuſions of mucilaginous vegetables, as marſh-mallow roots, lime-tree buds, &c. A teaſpoonful of the ſweet ſpirits of nitre, or a drachm of Caſtile ſoap, may be frequently put into the patient's drink.

Perſons

Perſons ſubject to a ſuppreſſion of urine ought to live very temperately. Their diet ſhould be light, and their liquor diluting. They ſhould avoid all acids and auſtere wines, ſhould take ſufficient exerciſe, lie hard, and avoid ſtudy and ſedentary occupations.

OF THE GRAVEL AND STONE.

When ſmall ſtones are lodged in the kidneys, or diſcharged along with the urine, the patient is ſaid to be afflicted with the gravel. If one of theſe ſtones happens to make a lodgment in the bladder for ſome time, it accumulates freſh matter, and at length becomes too large to paſs off with the urine. In this caſe the patient is ſaid to have the ſtone.

CAUSES.—The ſtone and gravel may be occaſioned by high living; the uſe of ſtrong aſtringent wines; a ſedentary life; lying too hot, ſoft, or too much on the back; the conſtant uſe of water impregnated with earthy or ſtony particles; aliments of an aſtringent or windy nature, &c. It may likewiſe proceed from an hereditary diſpoſition. Perſons in the decline of life, and thoſe who have been much afflicted with the gout or rheumatiſm, are moſt liable to it.

SYMPTOMS.—Small ſtones or gravel in the kidneys occaſion pain in the loins; ſickneſs; vomiting, and ſometimes bloody urine. When the ſtone deſcends into the *ureter*, and is too large to paſs along with eaſe, all the above ſymptoms are increaſed; the pain extends towards the bladder; the thigh and leg of the affected ſide are benumbed; the teſticles are drawn upwards, and the urine is obſtructed.

A ſtone in the bladder is known from a pain at the time, as well as before and after making water; from

from the urine coming away by drops, or ſtopping ſuddenly when it was running in a full ſtream; by a violent pain in the neck of the bladder upon motion, eſpecially on horſeback, or in a carriage on a rough road; from a white, thick, copious, ſtinking, mucous ſediment in the urine; from an itching in the top of the penis; from bloody urine; from an inclination to go to ſtool during the diſcharge of urine; from the patient's paſſing his urine more eaſily when lying than in an erect poſture; from a kind of convulſive motion occaſioned by the ſharp pain in diſcharging the laſt drops of the urine; and laſtly, from ſounding or ſearching with the catheter.

REGIMEN.—Perſons afflicted with the gravel or ſtone ſhould avoid aliments of a windy or heating nature, as ſalt meats, ſour fruits, &c. Their diet ought chiefly to conſiſt of ſuch things as tend to promote the ſecretion of urine, and to keep the body open. Artichokes, aſparagus, ſpinnage, lettuce, parſley, ſuccory, purſlane, turnips, potatoes, and carrots, may be ſafely eaten. Onions, leeks, and cellery are, in this caſe, reckoned medicinal. The moſt proper drinks are whey, butter-milk, milk and water, barley-water, decoctions or infuſions of the roots of marſh-mallows, parſley, liquorice, or of other mild mucilaginous vegetables, as flax-ſeed, lime-tree buds or leaves, &c.

Gentle exerciſe is proper; but violent motion is apt to occaſion bloody urine. We would therefore adviſe that it ſhould be taken in moderation. Perſons afflicted with gravel often paſs a great number of ſtones after riding on horſeback, or in a carriage; but thoſe who have a ſtone in the bladder are ſeldom able to bear theſe kinds of exerciſe. Where there is an hereditary tendency to this diſeaſe, a ſedentary life ought never to be indulged. Were people careful, upon the firſt ſymptoms of gravel,

to obſerve a proper regimen of diet, and to take ſufficient exerciſe, it might often be carried off, or at leaſt prevented from increaſing; but if the ſame courſe which occaſioned the diſeaſe is perſiſted in, it muſt be aggravated.

MEDICINE.—In what is called a fit of the gravel, which is commonly occaſioned by a ſtone ſticking in the *ureter*, or ſome part of the urinary paſſages, the patient muſt be bled, warm fomentations ſhould likewiſe be applied to the part affected, the warm bath uſed, emollient clyſters adminiſtered, and diluting mucilaginous liquors drank, &c. The treatment of this caſe has been fully pointed out under the articles *inflammation of the kidneys and bladder*, to which we refer.

Dr Whyte adviſes patients who are ſubject to frequent fits of gravel in the kidneys, but have no ſtone in the bladder, to drink every morning, two or three hours before breakfaſt, a pint of oyſter or cockle-ſhell lime-water. The Doctor very juſtly obſerves, that though this quantity might be too ſmall to have any ſenſible effect in diſſolving a ſtone in the bladder, yet it may very probably prevent its growth.

When a ſtone is formed in the bladder, the Doctor recommends Alicant ſoap, and oyſter or cockle-ſhell lime-water *, to be taken in the following manner: The patient muſt ſwallow every day, in any form that is leaſt diſagreeable, an ounce of the internal part of Alicant ſoap, and drink three or four Engliſh pints of oyſter or cockle-ſhell lime-water. The ſoap is to be divided into three doſes; the largeſt to be taken faſting in the morning early; the ſecond at noon; and the third at ſeven in the evening; drinking above each doſe a large draught of the lime-water; the remainder of which he may

* See Appendix, *Lime-water*.

take

take any time betwixt dinner and ſupper, inſtead of other liquors.

The patient ſhould begin with a ſmaller quantity of the lime-water and ſoap than that mentioned above; at firſt an Engliſh pint of the former, and three drachms of the latter may be taken daily. This quantity, however, he may increaſe by degrees, and ought to perſevere in the uſe of theſe medicines, eſpecially if he finds any abatement of his complaints, for ſeveral months; nay, if the ſtone be very large, for years.

The cauſtic alkali, or ſoap-lees, is the medicine chiefly in vogue at preſent for the ſtone. It is of a very acrid nature, and ought therefore to be given in ſome gelatinous or mucilaginous liquor; as veal-broth, new milk, flaxſeed-tea, a ſolution of gum-arabic, or a decoction of marſhmallow roots. The patient muſt begin with ſmall doſes of the lees, as thirty or forty drops, and increaſe by degrees, as far as the ſtomach can bear it*.

Though the ſoap-lees and lime-water are powerful medicines for the ſtone, yet there are ſome things of a more ſimple nature, which in certain caſes are found to be beneficial, and therefore deſerve a trial. An infuſion of the ſeeds of *daucus ſylveſtris;* or wild carrot, ſweetened with honey, has been found to give conſiderable eaſe in caſes where the ſtomach could not bear any thing of an acrid nature. A decoction of raw coffee-berries taken morning and evening, to the quantity of eight or ten ounces, with ten drops of ſweet ſpirit of nitre, has likewiſe been found very efficacious in bringing away large

* The cauſtic alkali may be prepared by mixing two parts of quick-lime with one of pot-aſhes and ſuffering them to ſtand till the lixivium be formed, which muſt be carefully filtrated before it be uſed. If the ſolution does not happen readily, a ſmall quantity of water may be added to them ixtume.

quantities of earthy matter in flakes. Honey is likewiſe found to be of conſiderable ſervice, and may be taken in gruel, or in any other form that is more agreeable.

The other medicine which we ſhall mention is the *uva urſi*. It has been greatly extolled of late both for the gravel and ſtone. It ſeems, however, to be in all reſpects inferior to the ſoap and lime-water; but it is leſs diſagreeable, and has frequently, to my knowledge, relieved gravelly complaints. It is generally taken in powder from half a drachm to a whole drachm, two or three times a-day. It may, however, be taken to the quantity of ſeven or eight drachms a-day, with great ſafety and good effect. Five drops of the ſpirit of vitriol in a tea-cupful of cold water, two or three times a-day, is, perhaps, one of the beſt remedies for theſe complaints; water impregnated with fixed air, procured by mixing the vitriolic acid with marble or chalk, has alſo been found very uſeful.

CHAP. XXXIV.

Of Involuntary Diſcharges of Blood.

SPONTANEOUS or involuntary diſcharges of blood, often happen from various parts of the body. Theſe, however, are ſo far from being always dangerous, that they often prove ſalutary. When ſuch diſcharges are critical, which is frequently the caſe in fevers, they ought not to be ſtopped. Nor indeed is it proper at any time to ſtop them, unleſs they be ſo great as to endanger

the patient's life. Moſt people, afraid of the ſmalleſt diſcharge of blood from any part of the body, fly immediately to the uſe of ſtyptic and aſtringent medicines, by which means an inflammation of the brain, or ſome other fatal diſeaſe, is occaſioned, which, had the diſcharge been allowed to go on, might have been prevented.

Periodical diſcharges of blood, from whatever part of the body they proceed, muſt not be ſtopped. They are always the efforts of Nature to relieve herſelf; and fatal diſeaſes have often been the conſequence of obſtructing them. It may indeed be ſometimes neceſſary to check the violence of ſuch diſcharges, but even this requires the greateſt caution.

In the early period of life, bleeding at the noſe is very common. Thoſe who are farther advanced in years are more liable to hæmoptoe, or diſcharge of blood from the lungs. After the middle period of life hæmorrhoidal fluxes are moſt common; and in the decline of life, diſcharges of blood from the urinary paſſages.

Involuntary fluxes of blood may proceed from very different, and often from quite oppoſite cauſes. Sometimes they are owing to a particular conſtruction of the body, as a ſanguine temperament, a laxity of the veſſels, a plethoric habit, &c. At other times they proceed from a determination of the blood towards one particular part, as the head, the hæmorrhoidal veins, &c. They may likewiſe proceed from an inflammatory diſpoſition of the blood-veſſels, in which caſe there is generally ſome degree of fever: this likewiſe happens when the flux is occaſioned by an obſtructed perſpiration, or a ſtricture upon the ſkin, the bowels, or any particular part of the ſyſtem.

Violent

Violent paſſions or agitations of the mind will likewiſe have this effect. Theſe often cauſe bleeding at the noſe, and I have known them ſometimes occaſion an hæmorrhage in the brain. Violent efforts of the body, by overſtraining or hurting the veſſels, may have the ſame effect, eſpecially when the body is long kept in an unnatural poſture, as hanging the head very low, &c.

The cure of an hæmorrhage muſt be adapted to its cauſe. When it proceeds from too much blood, or a tendency to inflammation, bleeding, with gentle purges, and other evacuations, will be neceſſary. It will likewiſe be proper for the patient in this caſe to live chiefly upon a vegetable diet, to avoid all ſtrong liquors, and food that is of an acrid, hot, or ſtimulating quality. The body ſhould be kept cool, and the mind eaſy.

When an hæmorrhage is owing to debility, the patient ought to live chiefly upon acid fruits, with milk and vegetables of a nouriſhing nature, as ſago, ſalop, &c. His drink may be wine diluted with water, and ſharpened with the juice of lemon, vinegar, or ſpirits of vitriol. The beſt medicine in this caſe is the Peruvian bark, which may be taken according to the urgency of the ſymtoms.

When a flux of blood is the effect of acrid food, or of ſtrong ſtimulating medicines, the cure is to be effected by ſoft and mucilaginous diet.

When an obſtructed perſpiration, or a ſtricture upon any part of the ſyſtem, is the cauſe of an hæmorrhage, it may be removed by drinking warm diluting liquors, lying a-bed, bathing the extremities in warm water, &c.

OF BLEEDING AT THE NOSE.

Bleeding at the nose is commonly preceded by some degree of quickness of the pulse, flushing in the face, pulsation of the temporal arteries, heaviness in the head, dimness of the sight, heat and itching of the nostrils, &c.

To persons who abound with blood this discharge is very salutary. It often cures a vertigo, the headach, a phrenzy, and even an epilepsy. In fevers, where there is a great determination of blood towards the head, it is of the utmost service. It is likewise beneficial in inflammations of the liver and spleen, and often in the gout and rheumatism. In all diseases where bleeding is necessary, a spontaneous discharge of blood from the nose is of much more service than the same quantity let with a lancet.

In a discharge of blood from the nose, the greater point is to determine whether it ought to be stopped or not. It is a common practice to stop the bleeding, without considering whether it be a disease, or the cure of a disease. This conduct proceeds from fear; but it has often bad, and sometimes fatal consequences.

When a discharge of blood from the nose happens in an inflammatory disease, there is always reason to believe that it may prove salutary; and therefore it should be suffered to go on, at least as long as the patient is not weakened by it.

When it happens to persons in perfect health, who are full of blood, it ought not to be suddenly stopped, especially if the symptoms of plethora, mentioned above, have preceded it. In this case it cannot be stopped without risking the patient's life.

In fine, whenever bleeding at the nose relieves any bad symptom, and does not proceed so far as to endanger

endanger the patient's life, it ought not to be ſtopped. But when it returns frequently, or continues till the pulſe becomes low, the extremities begin to grow cold, the lips pale, or the patient complains of being ſick or faint, it muſt immediately be ſtopped.

For this purpoſe, the patient ſhould be ſet nearly upright, with his head reclining a little, and his legs immerſed in water about the warmth of new milk. His hands ought likewiſe to be put into lukewarm water, and his garters may be tied a little tighter than uſual. Ligatures may be applied to the arms, about the place where they are uſually made for bleeding, and with nearly the ſame degree of tightneſs. Theſe muſt be gradually ſlackened as the blood begins to ſtop, and removed entirely as ſoon as it gives over.

Sometimes dry lint ſtuffed up in the noſtrils will ſtop the bleeding. Blue vitriol diſſolved in water, may likewiſe be uſed for this purpoſe, or a tent dipped in the white of an egg well beat up, may be rolled in a powder made of equal parts of white ſugar, burnt alum, and white vitriol, and put up the noſtril from whence the blood iſſues. A bliſter applied to the back of the neck is often of eſſential ſervice.

Internal medicines can hardly be of uſe here, as they have ſeldom time to operate. It may not, however, be amiſs to give the patient half an ounce of Glauber's ſalt, and the ſame quantity of manna, diſſolved in four or five ounces of barley-water. This may be taken at a draught, and repeated, if it does not operate, in a few hours. Ten or twelve grains of nitre may be taken in a glaſs of cold water and vinegar every hour, or oftener, if the ſtomach will bear it. If a ſtronger medicine be neceſſary, a tea-cupful of the tincture of roſes, with twenty or thirty drops of the weak ſpirit of vitriol, may be

taken every hour. When theſe things cannot be had, the patient may drink water, with a little common ſalt in it, or equal parts of water and vinegar.

If the genitals be immerſed for ſome time in cold water, it will generally ſtop a bleeding at the noſe. I have not known this fail.

Sometimes, when the bleeding is ſtopped outwardly, it continues inwardly. This is very troubleſome, and requires particular attention, as the patient is apt to be ſuffocated with the blood, eſpecially if he falls aſleep, which he is very ready to do after loſing a great quantity of blood.

When the patient is in danger of ſuffocation from the blood getting into his throat, the paſſages may be ſtopped by drawing threads up the noſtrils, and bringing them out of the mouth, then faſtening pieces of ſponge, or ſmall rolls of linen cloth to their extremities; afterwards drawing them back, and tying them on the outſide with a ſufficient degree of tightneſs.

After the bleeding is ſtopped, the patient ought to be kept as eaſy and quiet as poſſible. He ſhould not pick his noſe, nor take away the tents or clotted blood, till they fall off of their own accord, and ſhould not lie with his head low.

Thoſe who are affected with frequent bleeding at the noſe ought to bathe their feet often in warm water, and to keep them warm and dry. They ought to wear nothing tight about their necks, to keep their body as much in an erect poſture as poſſible, and never to view any object obliquely. If they have too much blood, a vegetable diet, with now and then a cooling purge, is the ſafeſt way to leſſen it.

But when the diſeaſe proceeds from debility, the diet ſhould be rich and nouriſhing; as ſtrong broths-

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and jellies, ſago-gruel with wine and ſugar, &c. Infuſions of the Peruvian bark in wine, ought likewiſe to be taken and perſiſted in for a conſiderable time.

OF THE BLEEDING AND BLIND PILES.

A diſcharge of blood from the hæmorrhoidal veſſels is called the *bleeding piles*. When the veſſels only ſwell, and diſcharge no blood, but are exceedingly painful, the diſeaſe is called the *blind piles*.

Perſons of a looſe ſpungy fibre, of a bulky ſize, who live high, and lead a ſedentary inactive life, are moſt ſubject to this diſeaſe. It is often owing to an hereditary diſpoſition. Where this is the caſe, it attacks perſons more early in life than when it is accidental. Men are more liable to it than women, eſpecially thoſe of a ſanguine, plethoric, or a ſcorbutic habit, or of a melancholy diſpoſition.

The piles may be occaſioned by an exceſs of blood, by ſtrong aloetic purges, high ſeaſoned food, drinking great quantities of ſweet, or other wines, the neglect of cuſtomary evacuations, much riding, great coſtiveneſs, or any thing that occaſions hard or difficult ſtools. Anger, grief, or other violent paſſions, will likewiſe occaſion the piles. I have often known them brought on by ſitting on the damp ground. A pair of thin breeches will excite the diſorder in a perſon who is ſubject to it, and ſometimes even in thoſe who never had it before. Pregnant women are often afflicted with the piles.

A flux of blood from the *anus*, is not always to be treated as a diſeaſe. It is even more ſalutary than bleeding at the noſe, and often prevents or carries off diſeaſes. It is peculiarly beneficial in the gout, rheumatiſm, aſthma, and hypochondriacal complaints, and often proves critical in colics, and inflammatory fevers.

In the management of the patient, regard muſt be had to his habit of body, his age, ſtrength, and manner of living. A diſcharge which might be exceſſive and prove hurtful to one, may be very moderate, and even ſalutary to another. That only is to be eſteemed dangerous which continues too long, and is in ſuch quantity as to waſte the patient's ſtrength, hurt the digeſtion, nutrition, and other functions neceſſary to life.

When this is the caſe, the diſcharge muſt be checked by a proper regimen, and aſtringent medicines. The DIET muſt be cool but nouriſhing, conſiſting chiefly of bread, milk, cooling vegetables and broths. The drink may be chalybeate water, orange-whey, decoctions or infuſions of the aſtringent and mucilaginous plants, as the tormentil root, biſtort, the marſhmallow-roots, &c.

Old conſerve of red roſes is a very good medicine in this caſe. It may be mixed with new milk, and taken in the quantity of an ounce, three or four times a-day. This medicine is in no great repute, owing to its being ſeldom taken in ſuch quantity as to produce any effects; but when taken as here directed, and duly perſiſted in, I have known it perform very extraordinary cures in violent hæmorrhages, eſpecially when aſſiſted by the tincture of roſes; a tea-cupful of which may be taken about an hour after every doſe of the conſerve.

The Peruvian bark is likewiſe proper in this caſe, both as a ſtrengthener and aſtringent. Half a drachm of it may be taken in a glaſs of red-wine, ſharpened with a few drops of the elixir of vitriol, three or four times a-day.

The bleeding piles are ſometimes periodical, and return regularly once a-month, or once in three weeks. In this caſe, they are always to be conſidered as a ſalutary diſcharge, and by no means to

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be ſtopped. Some have entirely ruined their health, by ſtopping a periodical diſcharge of blood from the hæmorrhoidal veins.

In the *blind piles* bleeding is generally of uſe. The diet muſt be light and thin, and the drink cool and diluting. It is likewiſe neceſſary that the body be kept gently open. This may be done by ſmall doſes of the flowers of brimſtone and cream of tartar. Theſe may be mixed in equal quantities, and a tea-ſpoonful taken two or three times a-day, in molaſſes, or oftener if neceſſary. Or an ounce of the flowers of brimſtone and half an ounce of purified nitre, may be mixed with three or four ounces of the lenitive electuary, and a tea-ſpoonful of it taken three or four times a-day*.

Emollient clyſters are here likewiſe beneficial; but there is ſometimes ſuch an aſtriction of the *anus*, that they cannot be thrown up.

When the piles are exceedingly painful and ſwelled, but diſcharge nothing, the patient muſt ſit over the ſteams of warm water. He may likewiſe apply a linen cloth, dipped in warm ſpirits of wine to the part, or poultices made of bread and milk, or of leeks fried with butter. If theſe do not produce a diſcharge, and the piles appear large, leeches muſt be applied as near them as poſſible, or, if they will fix upon the piles themſelves, ſo much the better. When leeches will not fix, the piles may be opened with a lancet. The operation is very eaſy, and is attended with no danger.

Various ointments and other external applications, are recommended in the piles; but I do not remember to have ſeen any effects from theſe worth mentioning, except the aſtringent ointment (ſee Appendix.)

* There is no better, nor more certain, laxative in theſe caſes, than a table-ſpoonful of caſtor-oil, mixed with a little wine.

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The piles, when ulcerated, may be anointed with this ointment twice a day. Their principal uſe is to keep the part moiſt, which may be done as well by a ſoft poultice, or an emollient cataplaſm. When the pain, however, is very great, a liniment made of two ounces of emollient ointment, and half an ounce of liquid laudanum, beat up with the yolk of an egg, may be applied.

SPITTING OF BLOOD.

We mean here to treat of that diſcharge of blood from the lungs only, which is called an *hæmoptoe* or *ſpitting of blood*. Perſons of a ſlender make, and a lax fibre, who have long necks and ſtrait breaſts, are moſt liable to this diſeaſe. It is moſt common in the ſpring, and generally attacks people before they arrive at the prime or middle period of life. It is a common obſervation, that thoſe who have been ſubject to bleeding at the noſe when young, are afterwards moſt liable to an hæmoptoe.

CAUSES.—An hæmoptoe may proceed from exceſs of blood, from a peculiar weakneſs of the lungs, or bad conformation of the breaſt. It is often occaſioned by exceſſive drinking, running, wreſtling, ſinging, or ſpeaking aloud. Such as have weak lungs, ought to avoid all violent exertions of that organ, as they value life. They ſhould likewiſe guard againſt violent paſſions, exceſſive drinking, and every thing that occaſions a rapid circulation of the blood.

This diſeaſe may likewiſe proceed from wounds of the lungs. Theſe may either be received from without, or they may be occaſioned by hard bodies getting into the wind-pipe, and ſo falling down upon the lungs, and hurting that tender organ. The obſtruction of any cuſtomary evacuation, may occaſion a ſpitting of blood; as neglect of bleeding or purging at the uſual ſeaſons, the ſtoppage of the

bleeding piles in men, or the menſes in women, &c. It may likewiſe proceed from a polypus, ſchirrous concretions, or any thing that obſtructs the circulation of the blood in the lungs. It is often the effect of a long and violent cough. A violent degree of cold ſuddenly applied to the external parts of the body will occaſion an hæmoptoe. It may likewiſe be occaſioned by breathing air which is too much rarified to be able properly to expand the lungs. This is often the caſe with thoſe who work in hot places, as furnaces, glaſs-houſes, or the like. It is likewiſe ſaid to happen to ſuch as aſcend to the top of very high mountains, as the Peak of Teneriffe, &c.

Spitting of blood is not always to be conſidered as a primary diſeaſe. It is often only a ſymptom, and in ſome caſes not an unfavourable one. This is the caſe in pleuriſies, peripneumonies, and ſundry other fevers. In a dropſy, ſcurvy, or conſumption, it is a bad ſymptom.

SYMPTOMS.—Spitting of blood is generally preceded by a ſenſe of weight, and oppreſſion of the breaſt, a dry tickling cough, hoarſeneſs, and a difficulty of breathing. Sometimes it is uſhered in with ſhivering, coldneſs of the extremities, coſtiveneſs, great laſſitude, flatulence, pain of the back and loins, &c. As theſe ſhew a general ſtricture upon the veſſels, and a tendency of the blood to inflammation, they are commonly the forerunners of a very copious diſcharge. The above ſymptoms do not attend a diſcharge of blood from the gums or fauces, by which means theſe may always be diſtinguiſhed from an hæmoptoe. Sometimes the blood that is ſpit up is thin, and of a florid red colour; and at other times it is thick, and of a dark or blackiſh colour; nothing, however, can be inferred from theſe circumſtances, but that the blood has lain a longer or ſhorter time in the breaſt before it was diſcharged.

Spitting

Spitting of blood, in a ſtrong, healthy perſon, of a ſound conſtitution, is not very dangerous; but when it attacks the tender and delicate, or perſons of a weak lax fibre, it is with difficulty removed. When it proceeds from a ſchirrus or polypus of the lungs, it is bad. The danger is greater when the diſcharge proceeds from the rupture of a large veſſel than of a ſmall one. When the extravaſated blood is not ſpit up, but lodges in the breaſt, it corrupts, and greatly increaſes the danger. When the blood proceeds from an ulcer in the lungs, it generally proves fatal.

REGIMEN.—The patient ought to be kept cool and eaſy. Every thing that heats the body, or quickens the circulation, increaſes the danger. The mind ought likewiſe to be ſoothed, and every occaſion of exciting the paſſions avoided. The diet ſhould be ſoft, cooling, and ſlender; as rice boiled with milk, ſmall broths, barley-water, panada, &c. The diet, in this caſe, can ſcarcely be too low. Even water-gruel is ſufficient to ſupport the patient for ſome days. All ſtrong liquors muſt be avoided. The patient may drink milk and water, barley-water, whey, butter-milk, and ſuch like. Every thing, however, ſhould be drank cold, and in ſmall quantities at a time. He ſhould obſerve the ſtricteſt ſilence, or at leaſt ſpeak with a very low voice.

MEDICINE.—This, like the other involuntary diſcharges of blood, ought not to be ſuddenly ſtopped by aſtringent medicines. More miſchief is often done by theſe than if it were ſuffered to go on. It may, however, proceed ſo far as to weaken the patient, and even endanger his life; in which caſe proper means muſt be uſed for reſtraining it. Much benefit has been experienced from the uſe of a table ſpoonful of common ſalt every hour in theſe caſes until the hæmorrhage is ſtopt; the ſame quantity of brown ſugar has likewiſe been uſed to advantage.

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The body ſhould be kept gently open by laxative diet; as roaſted apples, ſtewed prunes, and ſuch like. If theſe ſhould not have the deſired effect, a tea-ſpoonful of the lenitive electuary may be taken twice or thrice a-day, as is found neceſſary. If the bleeding proves violent, ligatures may be applied to the extremities, as directed for a bleeding at the noſe.

If the patient be hot or feveriſh, bleeding and ſmall doſes of nitre will be of uſe; a ſcruple or half a drachm of nitre may be taken in a cup of his ordinary drink twice or thrice a-day. His drink may likewiſe be ſharpened with acids, as juice of lemon, or a few drops of the ſpirit of vitriol; or he may take frequently a cup of the tincture of roſes.

Bathing the feet and legs in lukewarm water has likewiſe a very good effect in this diſeaſe. Opiates too are ſometimes beneficial; but theſe muſt be adminiſtered with caution. Ten or twelve drops of laudanum may be given in a cup of barley-water twice a-day, and continued for ſome time, provided they be found beneficial.

The conſerve of roſes is likewiſe a very good medicine in this caſe, provided it be taken in ſufficient quantity, and long enough perſiſted in. It may be taken to the quantity of three or four ounces a-day; and, if the patient be troubled with a cough, it ſhould be made into an electuary with balſamic ſyrup, and a little of the ſyrup of poppies.

If ſtronger aſtringents be neceſſary, fifteen or twenty drops of the elixir of vitriol may be given in a glaſs of water ſix or eight times a-day, or from two to ſix grains of powdered alum with half a drachm of Peruvian bark, three times a day.

Thoſe who are ſubject to frequent returns of this diſeaſe ſhould avoid all exceſs. Their diet ſhould be light and cool, conſiſting chiefly of milk and vegetables.

getables. Above all, let them beware of vigorous efforts of the body, and violent agitations of the mind*.

VOMITING OF BLOOD.

This is not ſo common as the other diſcharges of blood which have already been mentioned; but it is very dangerous, and requires particular attention.

Vomiting of blood is generally preceded by pain of the ſtomach, ſickneſs, and nauſea; and is accompanied with great anxiety and frequent fainting fits.

This diſeaſe is ſometimes periodical; in which caſe it is leſs dangerous. It often proceeds from an obſtruction of the menſes in women; and ſometimes from the ſtopping of the hæmorrhoidal flux in men. It may be occaſioned by any thing that greatly ſtimulates or wounds the ſtomach, as ſtrong vomits or purges, acrid poiſons, ſharp or hard ſubſtances taken into the ſtomach, &c. It is often the effect of obſtructions in the liver, the ſpleen, or ſome of the other viſcera. It may likewiſe proceed from external violence, as blows or bruiſes, or from any of the cauſes which produce inflammation. In hyſteric women, vomiting of blood is a very common, but by no means a dangerous ſymptom.

A great part of the danger in this diſeaſe ariſes from the extravaſated blood lodging in the bowels, and becoming putrid. The beſt way of preventing this is to keep the body gently open, by frequently exhibiting emollient clyſters. Purges muſt not be given till the diſcharge is ſtopt, otherwiſe they will irritate the ſtomach, and increaſe the diſorder. All the food and drink muſt be of a mild cooling nature,

* The moſt beneficial effects have been experienced from travelling in this, and every other preternatural diſcharge of blood.

and

and taken in ſmall quantities. Even drinking cold water has ſometimes proved a remedy, but it will ſucceed better when ſharpened with the weak ſpirits of vitriol. When there are ſigns of an inflammation, bleeding is neceſſary. Opiates may be of uſe; but they muſt be given in very ſmall doſes, as four or five drops of liquid laudanum twice or thrice a-day.

After the diſcharge is over, as the patient is generally troubled with gripes, occaſioned by the acrimony of the blood lodged in the inteſtines, gentle purges will be neceſſary.

OF BLOODY URINE.

This is a diſcharge of blood from the veſſels of the kidneys or bladder, occaſioned by their being either enlarged or eroded. It is more or leſs dangerous according to the different circumſtances which attend it.

When pure blood is voided ſuddenly without interruption and without pain, it proceeds from the kidneys; but if the blood be in ſmall quantity, of a dark colour, and emitted with heat and pain about the bottom of the belly, it proceeds from the bladder. When bloody urine is occaſioned by a rough ſtone deſcending from the kidneys to the bladder, which wounds the *ureters*, it is attended with a ſharp pain in the back, and difficulty of making water. If the coats of the bladder are hurt by a ſtone, and the bloody urine follows, it is attended with the utmoſt acute pain, and a previous ſtoppage of urine.

Bloody urine may likewiſe be occaſioned by falls, blows, the lifting or carrying of heavy burdens, hard riding, or any violent motion. It may alſo proceed from ulcers of the bladder, from a ſtone lodged in the kidneys, or from violent purges, or ſharp medicines, eſpecially cantharides.

Bloody

Bloody urine is always attended with ſome degree of danger: but it is peculiarly ſo when mixed with purulent matter, as this ſhews an ulcer ſomewhere in the urinary paſſages. Sometimes this diſcharge proceeds from exceſs of blood, in which caſe it is rather to be conſidered as a ſalutary evacuation than a diſeaſe. If the diſcharge, however, be very great, it may waſte the patient's ſtrength, and occaſion an ill habit of body, a dropſy, or a conſumption.

The treatment of this diſorder muſt be varied according to the different cauſes from which it proceeds.

When it is owing to a ſtone in the bladder, the cure depends upon an operation; a deſcription of which would be foreign to our purpoſe.

If it be attended with a plethora, and ſymptoms of inflammation, bleeding will be neceſſary. The body muſt likewiſe be kept open by emollient clyſters, or cooling purgative medicines; as cream of tartar, rhubarb, manna, or ſmall doſes of lenitive electuary.

When bloody urine proceeds from the ſmall-pox, a fever, or the like, the patient's life depends on the liberal uſe of the Peruvian bark and acids, as has already been ſhewn.

When there is reaſon to ſuſpect an ulcer in the kidneys or bladder, the patient's diet muſt be cool, and his drink of a ſoft, healing, balſamic quality, as decoctions of marſh-mallow roots with liquorice, ſolutions of gum-arabic, &c. Three ounces of marſh-mallow roots, and half an ounce of liquorice, may be boiled in two quarts of water to one; two ounces of gum-arabic, and half an ounce of purified nitre, may be diſſolved in the ſtrained liquor, and a tea-cupful of it taken four or five times a-day, and a continued courſe of mercurial medicines will be often found of ſervice.

The early uſe of aſtringents in this diſeaſe has often bad conſequences. When the flux is ſtopped too ſoon, the grumous blood, by being confined in the veſſels, may produce inflammations, abſceſs, and ulcers. If, however, the caſe be urgent, or the patient ſeems to ſuffer from the loſs of blood, gentle aſtringents may be neceſſary. In this caſe the patient may take three or four ounces of lime-water, with half an ounce of the tincture of Peruvian bark, three times a-day, or twenty drops of elixir of vitriol in a tea-cupful of water four or five times a-day.

OF THE DYSENTERY, OR BLOODY FLUX.

This diſeaſe prevails chiefly in the ſpring, ſummer, and autumn. It is moſt common in marſhy countries, where, after hot and dry ſummers, it is apt to become epidemic. Perſons are moſt liable to it who are much expoſed to the night air, or who live in places where the air is confined or unwholeſome. Hence it often proves fatal in camps, on ſhipboard, in jails, hoſpitals, and ſuch like places.

CAUSES.—The dyſentery may be occaſioned by any thing that obſtructs the perſpiration, as damp beds, wet clothes, unwholeſome air, &c. But it is moſt frequently communicated by infection.

SYMPTOMS.—It is known by a flux of the belly, attended with violent pain of the bowels, a conſtant inclination to go to ſtool, and generally more or leſs blood in the ſtools. It begins, like other fevers, with chilline ſs, loſs of ſtrength, a quick pulſe, great thirſt, and an inclination to vomit. The ſtools are at firſt greaſy and frothy, afterwards they are ſtreaked with blood, and at laſt have frequently the appearance of pure blood, mixed with ſmall filaments reſembling bits of ſkin. Worms are ſometimes paſſed both upwards and downwards through the whole courſe of

the diſeaſe. When the patient goes to ſtool, he feels a bearing down, as if the whole bowels were falling out, and ſometimes a part of the inteſtine is actually protruded, which proves exceedingly troubleſome, eſpecially in children. Flatulency is likewiſe a troubleſome ſymptom, eſpecially towards the end of the diſeaſe.

This diſeaſe may be diſtinguiſhed from a diarrhœa or looſeneſs, by the acute pain of the bowels, by the bearing down, and the blood which generally appears in the ſtools. It may be diſtinguiſhed from the *cholera morbus* by its not being attended with ſuch violent and frequent fits of vomiting, &c.

When the dyſentery attacks the old, the delicate, or ſuch as have been waſted by the gout, the ſcurvy, or other lingering diſeaſes, it often proves fatal. Vomiting and hiccuping are bad ſigns, as they ſhew an inflammation of the ſtomach. When the ſtools are green, black, or have an exceedingly diſagreeable cadaverous ſmell, the danger is very great. It is an unfavourable ſymptom when clyſters are immediately returned; but ſtill more ſo, when the paſſage is ſo obſtinately ſhut that they cannot be injected. A feeble pulſe, coldneſs of the extremities, with difficulty of ſwallowing, and convulſions, are ſigns of approaching death.

REGIMEN.—Nothing is of more importance in this diſeaſe than cleanlineſs. It contributes greatly to the recovery of the patient, and no leſs to the ſafety of ſuch as attend him. In all contagious diſeaſes the danger is increaſed, and the infection ſpread, by the neglect of cleanlineſs; but in no one more than this. Every thing about the patient ſhould be frequently changed. The excrements ſhould never be ſuffered to continue in his chamber, but removed immediately, and buried under ground. A conſtant ſtream of freſh air ſhould be admitted into the chamber: and it ought frequently to be ſprinkled with vinegar, juice of lemon,

or

or ſome other ſtrong acid. It is often of great importance in the cure of this diſeaſe, for the ſick to change not only their bed, but alſo their bed-chamber.

The patient muſt not be diſcouraged. Nothing tends more to render any diſeaſe mortal, than the fears and apprehenſions of the ſick. All diſeaſes of this nature have a tendency to ſink and depreſs the ſpirits, and when that is increaſed by fears and alarms from thoſe whom the patient believes to be perſons of ſkill, it cannot fail to have the worſt effects.

A flannel waiſtcoat worn next the ſkin has often a very good effect in the dyſentery. This promotes the perſpiration without over-heating the body. Great caution, however, is neceſſary in leaving it off. I have often known a dyſentery brought on by imprudently throwing off a flannel waiſtcoat before the ſeaſon was ſufficiently warm. For whatever purpoſe this piece of dreſs is worn, it ſhould never be left off but in a warm ſeaſon.

In this diſeaſe the greateſt attention muſt be paid to the patient's diet. Fleſh, fiſh, and every thing that has a tendency to turn putrid or rancid on the ſtomach, muſt be abſtained from. Apples boiled in milk, water-pap, and plain light pudding, with broth made of the gelatinous parts of animals, ſago-gruel, may conſtitute the principal part of the patient's food.

Another kind of food very proper in the dyſentery, which may be uſed by ſuch as cannot take the broth mentioned above, is made by boiling a few handfuls of fine flour, tied in a cloth, for ſix or ſeven hours, till it becomes as hard as ſtarch. Two or three table-ſpoonfuls of this may be grated down, and boiled in ſuch a quantity of new milk and water as to be of the thickneſs of pap. This may be ſweetened to the patient's taſte, and taken for his ordinary food*.

* The learned and humane Dr Rutherford, late profeſſor of medicine in the univerſity of Edinburgh, uſed to mention this

In a *dyſentery* the patient may be allowed to eat freely of moſt kinds of good ripe fruit; as grapes, ſtrawberries, raſpberries, blackberries, &c. Theſe may either be eaten raw or boiled, with or without milk, as the patient chuſes. The prejudice againſt fruit in this diſeaſe is ſo great, that many believe it to be the common cauſe of dyſenteries. This, however, is an egregious miſtake. Both reaſon and experience ſhew, that good fruit is one of the beſt medicines, both for the prevention and cure of the dyſentery. Good fruit is in every reſpect calculated to counteract that tendency to putrefaction, from whence the moſt dangerous kind of dyſentery proceeds. The patient in ſuch a caſe ought therefore to be allowed to eat as much fruit as he pleaſes, provided it be ripe*.

food in his public lectures with great encomiums. He directed it to be made by tying a pound or two of the fineſt flour, as tight as poſſible, in a linen rag, afterwards to dip it frequently in water, and to dredge the outſide with flour, till a cake or cruſt was formed around it, which prevents the water from ſoaking into it while boiling. It is then to be boiled till it becomes a hard dry maſs, as directed above. This, when mixed with milk and water, will not only anſwer the purpoſe of food, but may likewiſe be given in clyſters.

* I lately ſaw a young man who had been ſeized with a dyſentery in North-America. Many things had been tried there for his relief, but to no purpoſe. At length, tired out with diſappointments from medicine, and reduced to ſkin and bone, he came over to Britain, rather with a view to die among his relations, than with any hopes of a cure. After taking ſundry medicines here with no better ſucceſs than abroad, I adviſed him to leave off the uſe of drugs, and to truſt entirely to a diet of milk and fruits, with gentle exerciſe. Strawberries was the only fruit he could procure at that ſeaſon. Theſe he ate with milk twice, and ſometimes thrice a-day. The conſequence was, that in a ſhort time his ſtools were reduced from upwards of twenty in a-day, to three or four, and ſometimes not ſo many. He uſed the other fruits as they came in, and was in a few weeks ſo well as to leave that part of the country where I was, with a view to return to America.

The

The moſt proper drink in this diſordey is whey. The dyſentery has often been cured by the uſe of clear whey alone. It may be taken both for drink and in form of clyſter. When whey cannot be had, barley-water, ſharpened with cream of tartar, may be drank, or a decoction of barley and tamarinds; two ounces of the former and one of the latter, may be boiled in two quarts of water to one. Warm water, water-gruel, or water wherein hot iron has been frequently quenched, are all very proper, and may be drank in turns. Camomile-tea, if the ſtomach will bear it, is a very proper drink. It both ſtrengthens the ſtomach, and tends to prevent a mortification of the bowels.

MEDICINE.—At the beginning of this diſeaſe it is always neceſſary to cleanſe the firſt paſſages. For this purpoſe, if there is any fever or ſickneſs at ſtomach, a vomit of ipecacuanha muſt be given, and wrought off with weak camomile-tea. Strong vomits are ſeldom neceſſary here. A ſcruple, or fifteen grains of ipecacuanha, is generally ſufficient for an adult, and ſometimes a very few grains will ſuffice. The day after the vomit, an ounce or an ounce and a half of Glauber's ſalts or a table-ſpoonful of caſtor oil. This doſe may be repeated every other day, for two or three times. Afterwards ſmall doſes of ipecacuanha may be taken for ſome time. Two or three grains of the powder may be mixed in a table-ſpoonful of the ſyrup of poppies, and taken three times a-day. This diſeaſe generally yields to the following plan: A doſe of Glauber's ſalts or caſtor-oil in the morning, and one or two grains of opium at night, to be repeated until the diſeaſe is conquered. In children, from five to ſeven grains of calomel, with a little magneſia or rhubarb, anſwer much better than any other purgative. Fever is ſo very common an attendant on dyſentery that the judicious Sydenham

calls it *fever of the bowels*. It is always neceſſary to treat it as fever, and according to the ſtate of the pulſe, to bleed, purge, bliſter, &c. until the fever is removed.—The truth is, that here, as in all other caſes, we muſt direct our practice according to the diſeaſes of the ſeaſon, or reigning epidemic.

Theſe evacuations, and the regimen preſcribed above, will often be ſufficient to effect a cure. Should it, however, happen otherwiſe, the following additional aſtringent medicines may be uſed.

A clyſter of ſtarch, or fat mutton-broth, with thirty or forty drops of liquid laudanum in it, may be adminiſtered twice a-day. At the ſame time an ounce of gum-arabic, and half an ounce of gum-tragacanth, may be diſſolved in a pint of barley-water, over a ſlow fire, and a table-ſpoonful of it taken every hour.

If theſe have not the deſired effect, the patient may take, four times a-day, about the buſk of a nutmeg of the *Japonic confection*, drinking after it a tea-cupful of the decoction of logwood* ; or, the Columbo root may be given in infuſion or decoction. Two drachms of the root ſliced may be put to a pint of boiling-water, half a drachm of cinnamon bark may be added ; a wine glaſs full for a doſe four or five times a-day.

Perſons who have been cured of this diſeaſe are very liable to ſuffer a relapſe ; to prevent which, great circumſpection with reſpect to diet is neceſſary. The patient muſt abſtain from all fermented liquors, except now and then a glaſs of good wine ; but he muſt drink no kind of malt-liquor. He ſhould likewiſe abſtain from ſtrong animal food, and live principally on milk and vegetables.

Gentle exerciſe and wholeſome air are likewiſe of importance. The patient ſhould go to the country as ſoon as his ſtrength will permit, and ſhould take ex-

* See Appendix, *Decoction of Logwood.*

erciſe

ercíſe daily on horſeback, or in a carriage. He may likewiſe uſe bitters, and may drink twice a-day a gill of lime-water mixed with an equal quantity of new milk.

When dyſenteries prevail, we would recommend a ſtrict attention to cleanlineſs, a ſpare uſe of animal food, and a free uſe of found ripe fruits, and other vegetables. The night air is to be carefully avoided, and all communication with the ſick. Bad ſmells are likewiſe to be ſhunned, eſpecially thoſe which ariſe from putrid animal ſubſtances. The neceſſaries where the ſick go, are carefully to be avoided.

There are ſundry other fluxes of the belly, as the LIENTERY and CŒLIAC PASSION, which, though leſs dangerous than the dyſentery, yet merit conſideration. Theſe diſeaſes generally proceed from a relaxed ſtate of the ſtomach and inteſtines, which is ſometimes ſo great that the food paſſes through them without almoſt any ſenſible alteration; and the patient dies merely from the want of nouriſhment.

When the lientery or cœliac paſſion ſucceeds to a dyſentery, the caſe is bad. They are always dangerous in old age, eſpecially when the conſtitution has been broken by exceſs or acute diſeaſes. If the ſtools be very frequent, and quite crude, the thirſt great, with little urine, the mouth ulcerated, and the face marked with ſpots of different colours, the danger is very great.

The treatment of the patient, is in general the ſame as in the dyſentery. In all obſtinate fluxes of the belly, and eſpecially in the diarrhœa which often follows dyſentery, the cure muſt be attempted, firſt by cleanſing the ſtomach and bowels with gentle vomits and purges; afterwards, ſuch a diet as has a tendency to heal and ſtrengthen the bowels, with opiates and aſtringent medicines, will generally perfect the cure.

CHAP. XXXV.

Of the Head-ach.

ACHES and pains proceed from very different cauſes, and may affect any part of the body; but we ſhall point out thoſe only which occur moſt frequently, and are attended with the greateſt danger.

When the head-ach is ſlight, and affects a particular part of the head only, it is called *cephalalgia*; when the whole head is affected, *cephalæa*; and when on one ſide only, *hemicrania*. A fixed pain in the forehead, which may be covered with the end of the thumb, is called the *clavis hyſtericus*.

There are alſo other diſtinctions. Sometimes the pain is internal, ſometimes external; ſometimes it is an original deſeaſe, and at other times only ſymptomatic. When the head-ache proceeds from a hot bilious habit, the pain is very acute and throbbing, with a conſiderable heat of the part affected. When from a cold phlegmatic habit, the patient complains of a dull heavy pain, and has a ſenſe of coldneſs in the part.

Whatever obſtructs the free circulation of the blood through the veſſels of the head, may occaſion a head-ach. In perſons of a full habit, who abound with blood, or other humors, the head-ach often proceeds from the ſuppreſſion of cuſtomary evacuations; as bleeding at the noſe, ſweating of the feet, &c. It may likewiſe proceed from any cauſe that determines a great flux of blood towards the head; as coldneſs of the extremities, or hanging down the

head

head for a long time. Whatever prevents the return of the blood from the head will likewiſe occaſion a head-ach; as looking long obliquely at any object, wearing any thing tight about the neck, or the like.

When a head-ach proceeds from a ſtoppage of a running at the noſe, there is a heavy, obtuſe, preſſing pain in the fore part of the head, in which there ſeems to be ſuch a weight, that the patient can ſcarcely hold it up. When it is occaſioned by the venereal diſeaſe, it generally affects the ſkull, and often produces a *caries* of the bones.

Sometimes the head-ach proceeds from the repulſion or retroceſſion of the gout, the eryſipelas, the ſmall-pox, meaſles, itch, or other eruptive diſeaſes. What is called *hemicrania* generally proceeds from crudities or indigeſtion. Inanition, or emptineſs, will often alſo occaſion head-achs. I have often ſeen inſtances of this in nurſes who gave ſuck too long, or who did not take a ſufficient quantity of ſolid food.

There is likewiſe a moſt violent, fixed, conſtant, and almoſt intolerable head-ach, which occaſions great debility both of body and mind, prevents ſleep, deſtroys the appetite, cauſes a *vertigo*, dimneſs of ſight, a noiſe in the ears, convulſions, epileptic fits, and ſometimes vomiting, coſtiveneſs, coldneſs of the extremities, &c.

The head-ach, is often ſymptomatic in continual and intermitting fevers, eſpecially quartans. It is likewiſe a very common ſymptom in hyſteric and hypochondriac complaints.

When a head-ach attends an acute fever, with pale urine, it is an unfavourable ſymptom. In exceſſive head-achs, coldneſs of the extremities is a bad ſign.

When

When the diſeaſe continues long, and is very violent, it may terminate in blindneſs, an apoplexy, deafneſs, a *vertigo*, the palſy, epilepſy, &c.

In this diſeaſe the cool regimen in general is to be obſerved. The diet ought to conſiſt of ſuch emollient ſubſtances as will correct the acrimony of the humors, and keep the body open; as apples boiled in milk, ſpinage, turnips, and ſuch like. The drink ought to be diluting; as barley-water, infuſions of mild mucilaginous vegetables, decoctions of the ſudorific woods, &c. The feet and legs ought to be kept warm, and frequently bathed in lukewarm water; the head ſhould be ſhaved, and bathed with water and vinegar. The patient ought as much as poſſible to keep in an erect poſture, and not to lie with his head too low.

When the head-ach is owing to exceſs of blood, or an hot bilious conſtitution, bleeding is neceſſary. Cupping alſo, or the application of leeches to the temples, and behind the ears, will be of ſervice. Afterwards, a bliſtering-plaſter may be applied to the neck, behind the ears, or to any part of the head that is moſt affected. In ſome caſes it will be proper to bliſter the whole head. In perſons of a groſs habit, iſſues or perpetual bliſters will be of ſervice. The body ought likewiſe to be kept open by gentle laxatives.

But when the head-ach continues with a dull, heavy, continual pain, which will neither yield to bleeding nor gentle laxatives, then more powerful purgatives are neceſſary, as pills made of aloes, reſin of jalap, or the like. It will alſo be neceſſary in this caſe to bliſter the whole head, and to keep on the back part of the neck, for a conſiderable time, a perpetual bliſter.

When

When the head-ach is occaſioned by the ſtoppage of a running at the noſe, the patient ſhould frequently ſmell to a bottle of volatile ſalts; he may likewiſe take ſnuff, or any thing that will irritate the noſe, ſo as to promote a diſcharge from it; as the herb maſtich, ground-ivy, &c.

A *hemicrania*, eſpecially a periodical one, is generally owing to a foulneſs of the ſtomach, for which gentle vomits muſt be adminiſtered, as alſo purges of rhubarb. After the bowels have been ſufficiently cleared, chalybeate waters, and ſuch bitters as ſtrengthen the ſtomach, will be neceſſary. A periodical head-ach has been cured by wearing a piece of flannel over the forehead during the night.

When the head-ach ariſes from a vitiated ſtate of the humors, as in the ſcurvy and venereal diſeaſe, the patient, after proper evacuations, muſt drink freely of the decoction of woods, or the decoction of ſarſaparilla, with raiſins and liquorice*. Theſe promote perſpiration, ſweeten the humors, and, if duly perſiſted in, will produce very happy effects. When a collection of matter is felt under the ſkin, it muſt be diſcharged by an inciſion, otherwiſe it will render the bone carious.

When the head-ach is ſo intolerable as to endanger the patient's life, or is attended with continual watching, delirium, &c. recourſe muſt be had to opiates. Theſe, after proper evacuations by clyſters or mild purgatives, may be applied both externally and internally. The affected part may be rubbed with Bate's anodyne balſam, or a cloth dipped in it may be applied to the part. The patient may, at the ſame time, take twenty drops of laudanum, in a cup of valerian or penny-royal tea, twice or thrice a-day. This is only to be done in caſe of extreme

* See Appendix, *Decoction of Sarſaparilla.*

pain.

pain. Proper evacuations ought always to accompany and follow the uſe of opiates*.

When the patient cannot bear the loſs of blood, his feet ought frequently to be bathed in lukewarm water, and well rubbed with a coarſe cloth. Cataplaſms with muſtard or horſeradiſh ought likewiſe to be applied to them. This courſe is peculiarly neceſſary when the pain proceeds from a gouty humor affecting the head.

When the head-ach is occaſioned by great heat, hard labour, or violent exerciſe of any kind, it may be allayed by cooling medicines; as the ſaline draughts with nitre, and the like.

A little of Ward's eſſence, dropt into the palm of the hand, and applied to the forehead, will ſometimes remove a violent head-ach; and ſo will æther, when applied in the ſame manner.

OF THE TOOTH-ACH.

This diſeaſe is ſo well known that it needs no deſcription. It has great affinity with the rheumatiſm, and often ſucceeds pains of the ſhoulders and other parts of the body.

It may proceed from obſtructed perſpiration, or any of the other cauſes of inflammation. I have often known the tooth-ach occaſioned by neglecting ſome part of the uſual covering of the head, by ſit-

* When the pain is very violent, and does not yield to ſmall doſes of laudanum, the quantity may be increaſed. I have known a patient in extreme pain take three hundred drops in twenty-four hours; but ſuch doſes ought only to be adminiſtered by a perſon of ſkill.

What is called the nervous head-ach, which comes on periodically, beginning with a dimneſs of ſight, followed by violent pain, may be very effectually relieved for the time, by giving from twenty to thirty drops of laudanum.

ting

ting with the head bare near an open window, or expoſing it any how to a draught of cold air. Food or drink taken either too hot or too cold is very hurtful to the teeth. Great quantities of ſugar, or other ſweet-meats, are likewiſe hurtful. Nothing is more deſtructive to the teeth than cracking nuts, or chewing any kind of hard ſubſtances. Picking the teeth with pins, needles, or any thing that may hurt the enamel with which they are covered, does great miſchief, as the tooth is ſure to be ſpoiled whenever the air gets into it. Breeding women are very ſubject to the tooth-ach, eſpecially during the firſt three or four months of pregnancy. The tooth-ach often proceeds from ſcorbutic humors affecting the gums. In this caſe the teeth are ſometimes waſted, and fall out without any conſiderable degree of pain. The more immediate cauſe of the tooth-ach is a rotten or *carious* tooth.

In order to relieve the tooth-ach, we muſt firſt endeavour to leſſen the flux of humors to the part affected. This may be done by mild purgatives, ſcarifying the gums, or applying leeches to them, and bathing the feet frequently with warm water. The perſpiration ought likewiſe to be promoted, by drinking freely of diluting liquors, with ſmall doſes of nitre.

If this fails, and the pain and inflammation ſtill increaſes, a ſuppuration may be expected; to promote which a toaſted fig ſhould be held between the gum and the cheeks; bags filled with boiled camomile-flowers, flowers of elder, or the like, may be applied near the part affected, with as great a degree of warmth as the patient can bear, and renewed as they grow cool: the patient may likewiſe receive the ſteams of warm water into his mouth, through an inverted funnel, or by holding his head over the mouth of a porringer filled with warm water, &c.

Such

Such things as promote the diſcharge of ſaliva, or cauſe the patient to ſpit, are ſometimes of ſervice. For this purpoſe, bitter, hot, or pungent vegetables may be chewed; as gentian, calamus aromaticus.

Many other herbs, roots, and ſeeds, are recommended for curing the tooth-ach; as the leaves or roots of millefoil or yarrow chewed, tobacco ſmoaked or chewed, ſtaves-acre, or the ſeeds of muſtard chewed, &c. Theſe bitter, hot, and pungent things, by occaſioning a greater flow of *ſaliva*, frequently give eaſe in the tooth-ach.

Opiates often relieve the tooth-ach. For this purpoſe a little cotton wet with laudanum may be held between the teeth; or a piece of ſticking plaſter, about the bigneſs of a ſhilling, with a bit of opium in the middle of it, of a ſize not to prevent the ſticking of the other, may be laid on the temporal artery, where the pulſation is moſt ſenſible*. *De la Motte* affirms, that there are few caſes wherein this will not give relief. If there be a hollow tooth, a ſmall pill made of equal parts of camphire and opium, put into the hollow, is often beneficial. When this cannot be had, the hollow tooth may be filled with gum maſtich, wax, lead, or any ſubſtance that will ſtick in it, and keep out the external air.

Few applications give more relief in the tooth-ach than bliſtering-plaſters. Theſe may be applied between the ſhoulders; but they have the beſt effect when put behind the ears, and made ſo large as to cover a great part of the lower jaw.

After all, when a tooth is carious, it is often impoſſible to remove the pain without extracting it; and, as a ſpoilt tooth never becomes ſound again, it is prudent to draw it ſoon, leſt it ſhould affect

* Or what is much better, a plaſter made of laudanum and common wheat flour.

the

the reſt. Tooth-drawing, like bleeding, is very much practiſed by mechanics, as well as perſons of the medical profeſſion. The operation, however, is not without danger, and ought always to be performed with care. A perſon unacquainted with the ſtructure of the parts will be in danger of hurting the jaw-bone, or of drawing a ſound tooth inſtead of a rotten one*.

When the tooth-ach returns periodically, and the pain chiefly affects the gums, it may be cured by the bark.

Some pretend to have found great benefit in the tooth-ach, from the application of an artificial magnet to the affected tooth. We ſhall not attempt to account for its mode of operation; but, if it be found to anſwer, though only in particular caſes, it certainly deſerves a trial, as it is attended with no expence, and cannot do any harm. Electricity has likewiſe been recommended, and particular inſtruments have been invented for ſending a ſhock through the affected tooth. The tooth-ach may very often be prevented by the uſe of a flannel night cap.

Perſons who have returns of the tooth-ach at certain ſeaſons, as ſpring and autumn, might often prevent it by taking a purge at theſe times.

Keeping the teeth clean has no doubt a tendency to prevent the tooth-ach. The beſt method of doing this is to rub the gums daily with the bark, and to have the tartar taken off when it collects in any quantity. And inſtead of a tooth pick to clean the teeth by paſſing a bit of thread between them.

* This may always be prevented by the operator ſtriking upon the teeth with any piece of metal, as this never fails to excite the pain in the carious tooth.

OF THE EAR-ACH.

This diſorder chiefly affects the membrane which lines the inner cavity of the ear, called the *meatus auditorius*. It is often ſo violent as to occaſion great reſtleſſneſs, anxiety, and even delirium.

The ear-ach may proceed from any of the cauſes which produce inflammation. It often proceeds from a ſudden ſuppreſſion of perſpiration, or from the head being expoſed to cold when covered with ſweat. It may alſo be occaſioned by worms, or other inſects getting into the ear, or being bred there; or from any hard body ſticking in the ear. Sometimes it proceeds from the tranſlation of matter to the ear. This often happens in the decline of malignant fevers, and occaſions deafneſs.

When the ear-ach proceeds from inſects, or any hard body ſticking in the ear, every method muſt be taken to remove them as ſoon as poſſible. The membranes may be relaxed by dropping into the ear oil of ſweet almonds, or olive oil. If this ſhould not force out the body, it muſt be extracted by art. I have ſeen inſects, which had got into the ear, come out of their own accord upon pouring in oil, which is a thing they cannot bear. The pain in the ear is ſometimes ſo violent, as to make it abſolutely neceſſary to give twenty-five drops of liquid laudanum in a little water every hour, until the pain abates.

When the pain of the ear proceeds from inflammation, it muſt be treated like other topical inflammations, by a cooling regimen, and opening medicines. Bleeding at the beginning, either in the arm or jugular vein, or cupping in the neck, will be proper. The ear may likewiſe be fomented with ſteams of warm water; or flannel bags filled with boiled mallows and camomile flowers may be applied to it

warm; or bladders filled with warm milk and water. A very good method of fomenting the ear is to apply it close to the mouth of a jug filled with warm water, on a strong decoction of camomile-flowers.

The patient's feet should be frequently bathed in lukewarm water, and he ought to take small doses of nitre and rhubarb, *viz.* a scruple of the former, and ten grains of the latter, three times a-day. His drink may be whey, or a decoction of barley and liquorice, with figs or raisins. The parts behind the ear ought frequently to be rubbed with camphorated oil, or a little of the volatile liniment; or what perhaps is far preferable, a blister applied behind the ear.

When the inflammation cannot be discussed, a poultice of bread and milk, or roasted onions, may be applied to the ear, and frequently renewed, till the abscess breaks, or can be opened. Afterwards the humors may be diverted by gentle laxatives, blisters, or issues; but the discharge must not be suddenly dried up by any external application.

PAIN OF THE STOMACH, &c.

This may proceed from various causes; as indigestion, wind, the acrimony of the bile, sharp, acrid, or poisonous substances taken into the stomach, &c. It may likewise be occasioned by worms, the stoppage of customary evacuations, a translation of gouty matter to the stomach, the bowels, &c.

Women in the decline of life are very liable to pains in the stomach and bowels, especially such as are afflicted with hysteric complaints. It is likewise very common to hypochondriac men of a sedentary and luxurious life. In such persons it sometimes proves so extremely obstinate as to baffle all the powers of medicine.

When the pain of the ſtomach is moſt violent after eating, there is reaſon to ſuſpect that it proceeds from ſome fault either in the digeſtion or the food. In this caſe the patient ought to change his diet, till he finds what kind of food agrees beſt with his ſtomach, and ſhould continue chiefly to uſe it. If a change of diet does not remove the complaint, the patient may take a gentle vomit, and afterwards a doſe or two of rhubarb. He ought likewiſe to take an infuſion of camomile-flowers, or ſome other ſtomachic bitter, either in wine or water. I have often known exerciſe remove this complaint, eſpecially ſailing, or a long journey on horſeback, or in a carriage.

When a pain of the ſtomach proceeds from flatulency, the patient is conſtantly belching up wind, and feels an uneaſy diſtention of the ſtomach after meals. In general, the patient ought to avoid all windy diet, and every thing that ſours on the ſtomach, as greens, roots, &c. This rule, however, admits of ſome exceptions. There are many inſtances of perſons very much troubled with wind, who have received great benefit from eating parched peaſe, though that grain is generally ſuppoſed to be of a windy nature*.

This complaint may be likewiſe greatly relieved by labour, eſpecially digging, reaping, mowing, or any kind of active employment by which the bowels are alternately compreſſed and dilated. The moſt obſtinate caſe of this kind I ever met with was in a perſon of a ſedentary occupation, whom I adviſed, after he had tried every kind of medicine in vain, to turn gardener; which he did, and has ever ſince enjoyed good health.

When a pain of the ſtomach is occaſioned by the ſwallowing of acrid or poiſonous ſubſtances,

* Theſe are prepared by ſteeping or ſoaking peaſe in water, and afterwards drying them in a pot or kiln till they be quite hard. They may be uſed at pleaſure. This preparation moſt probably expels the wind.

they

they muſt be diſcharged by vomit; this may be excited by butter, oils, or other ſoft things, which ſheath and defend the ſtomach from the acrimony of its contents.

When pain of the ſtomach proceeds from a tranſlation of gouty matter, warm cordials are neceſſary, as generous wines, French brandy, &c. Some have drank a whole bottle of brandy or rum, in this caſe, in a few hours, without being in the leaſt intoxicated, or even feeling the ſtomach warmed by it. It is impoſſible to aſcertain the quantities neceſſary upon theſe occaſions. This muſt be left to the feelings and diſcretion of the patient. The ſafer way however is, not to go too far*.

If a pain of the ſtomach proceed from the ſtoppage of cuſtomary evacuations, bleeding will be neceſſary, eſpecially in ſanguine and very full habits. It will likewiſe be of uſe to keep the body gently open by mild purgatives; as rhubarb or ſenna, &c. When this diſeaſe affects women, in the decline of life, after the ſtoppage of the *menſes*, making an iſſue in the leg or arm will be of peculiar ſervice.

When the diſeaſe is occaſioned by worms, they muſt be deſtroyed, or expelled by ſuch means as are recommended in the following ſection.

When the ſtomach is greatly relaxed, and the digeſtion bad, which often occaſions flatulencies, the elixir of vitriol will be of ſingular ſervice. Fifteen or twenty drops of it may be taken in a glaſs of wine or water twice or thrice a-day, or a glaſs of the decoction of Columbo, as recommended in the dyſentery, may be taken three or four times a-day.

Perſons afflicted with flatulency are generally unhappy unleſs they be taking ſome purgative medi-

* A tea-ſpoonful of ether, with ten drops of laudanum, in a little water, repeated every half hour if neceſſary, will do more good in theſe caſes than a gallon of brandy.

cines; theſe, though they may give immediate eaſe tend to weaken and relax the ſtomach and bowels and conſequently increaſe the diſorder. Their beſt method is to mix purgatives and ſtomachics together. Equal parts of Peruvian bark and rhubarb may be uſed in wine, and taken in ſuch quantity as to keep the body gently open.

CHAP. XXXVI.

Of Worms.

THESE are chiefly of three kinds, *viz.* the *tænia*, or tape-worm; the *teres*, or round and long worm; and the *aſcarides*, or round and ſhort worms. There are many other kinds of worms found in the human body; but as they proceed, in a great meaſure, from ſimilar cauſes, have nearly the ſame ſymptoms, and require almoſt the ſame method of treatment as theſe already mentioned, we ſhall not ſpend time in enumerating them.

The tape-worm is white, very long, and full of joints. It is generally bred either in the ſtomach or ſmall inteſtines. The round and long worm is likewiſe bred in the ſmall guts, and ſometimes in the ſtomach. The round and ſhort worms commonly lodge in the *rectum*, or what is called the end gut, and occaſion a diſagreeable itching about the ſeat.

The long round worms occaſion ſqueamiſhneſs, vomiting, a diſagreeable breath, gripes, looſeneſs, ſwellings of the belly, ſwooning, loathing of food, and at other times a voracious appetite, a dry cough, convulſions, epileptic fits, and ſometimes a privation

of

of ſpeech. The effects of the tape-worm are nearly the ſame with thoſe of the long and round, but rather more violent.

Andry ſays, the following ſymptoms particularly attend the *ſolium*, which is a ſpecies of the tape-worm, *viz.* ſwoonings, privation of ſpeech, and a voracious appetite. The round worms called *aſcarides*, beſides an itching of the *anus*, cauſe ſwoonings, and teneſmus, or an inclination to go to ſtool.

CAUSES.—Worms may proceed from various cauſes; but they are ſeldom found to be troubleſome, except in weak and relaxed ſtomachs, where the digeſtion is bad. Sedentary perſons are more liable to them than the active and laborious. Thoſe who eat great quantities of unripe fruit, or who live much on raw herbs and roots, are generally ſubject to worms. There ſeems to be an hereditary diſpoſition in ſome perſons to this diſeaſe. I have often ſeen all the children of a family ſubject to worms of a particular kind.

SYMPTOMS.—The common ſymptoms of worms are, paleneſs of the countenance, and at other times, an univerſal flushing of the face; itching of the noſe; this, however, is doubtful, as children pick their noſes in many diſeaſes; ſtarting, and grinding of the teeth in ſleep; ſwelling of the upper lip; the appetite ſometimes bad, at other times quite voracious; looſeneſs; a ſour or ſtinking breath; a hard ſwelled belly; great thirſt; the urine frothy, and ſometimes of a whitiſh colour; griping, or colic pains; an involuntary diſcharge of *ſaliva*, eſpecially when aſleep, frequent pains of the ſide, with a dry cough, and unequal pulſe; palpitations of the heart; ſwoonings; drowſineſs; cold ſweats; palſy; epileptic fits, with many other unaccountable nervous ſymptoms, which were formerly attributed to witchcraft, or the influence of evil ſpirits. Small bodies in the excre-

ments, reſembling melon or cucumber ſeeds, are ſymptoms of the tape-worm.

I lately ſaw ſome very ſurpriſing effects of worms in a girl about five years of age, who uſed to lie for whole hours as if dead. She at laſt expired, and, upon opening her body, a number of the *teres*, or long round worm, were found in her guts, which were conſiderably inflamed; and what anatomiſts call an *intus ſuſceptio*, or involving of one part of the gut within another, had taken place in no leſs than four different parts of the inteſtinal canal*.

MEDICINE.—Though numberleſs medicines are extolled for expelling and killing worms†, yet no diſeaſe more frequently baffles the phyſician's ſkill. In general, the moſt proper medicines for their expulſion are ſtrong purgatives; and to prevent their breeding, ſtomachic bitters.

The beſt purge is jalap and calomel. Five and twenty or thirty grains of the former with ſix or ſeven of the latter, for an adult, mixed in ſyrup, may be taken early in the morning, for a doſe. It will be proper that the patient keep the houſe all day, and drink nothing cold. The doſe may be repeated once or twice a week, for a fortnight or three weeks. On the intermediate days, the patient may take a

* That worms exiſt in the human body, there can be no doubt; and that they muſt ſometimes be conſidered as a diſeaſe, is equally certain: but this is not the caſe ſo often as people imagine. The idea that worms occaſion many diſeaſes, gives an opportunity to the profeſſed worm doctors of impoſing on the credulity of mankind, and doing much miſchief. They find worms in every caſe, and liberally throw in their antidotes, which generally conſiſt of ſtrong, draſtic purges. I have known theſe given, in delicate conſtitutions, to the deſtruction of the patient, where there was not the leaſt ſymptom of worms.

† A medical writer of the preſent age, has enumerated upwards of fifty Britiſh plants, all celebrated for killing and expelling worms.

drachm

drachm of the powder of tin, twice or thrice a-day, mixed with ſyrup, honey or molaſſes.

Thoſe who do no chuſe to take calomel, may make uſe of the bitter purgatives; as aloes, hiera picra, tincture of ſenna, rhubarb, &c.

Oily medicines are ſometimes found beneficial for expelling worms. An ounce of ſallad oil, and a table-ſpoonful of common ſalt may be taken in a glaſs of red port wine thrice a-day, or oftener, if the ſtomach will bear it. But the more common form of uſing oil is in clyſters. Oily clyſters, ſweetened with ſugar or honey, are very efficacious in bringing away the ſhort round worms called *aſcarides*, and likewiſe the *teres*.

The Harrowgate water is an excellent medicine for expelling worms, eſpecially the *aſcarides*. As this water is impregnated with ſulphur, we may hence infer, that ſulphur alone muſt be a good medicine in this caſe; which is found to be a fact. Many practitioners give flour of ſulphur in very large doſes, and with great ſucceſs. It ſhould be made into an electuary with honey or molaſſes, and taken in ſuch quantity as to purge the patient.

Where Harrowgate water cannot be obtained, ſea-water may be uſed, which is far from being a contemptible medicine in this caſe. If ſea-water cannot be had, common ſalt diſſolved in water may be drunk. I have often ſeen this uſed by country nurſes, with very good effect. Some flour of ſulphur may be taken over night, and the ſalt-water in the morning.

But worms, though expelled, will ſoon breed again, if the ſtomach remains weak and relaxed; to prevent which, we would recommend the Peruvian bark. Half a drachm of bark in powder may be taken in a glaſs of red port wine three or four times a-day, after the above medicines have been uſed. Limewater is likewiſe good for this purpoſe, or a

table-ſpoonful of the chalybeate wine taken twice or thrice a-day. Infuſions or decoctions of bitter herbs, may likewiſe be drank; as the infuſion of tanſy, water trefoil, camomile-flowers, tops of wormwood, centaury, &c.

For a child of four or five years old, ſix grains of rhubarb, five of jalap, and ſix of calomel, may be mixed in a ſpoonful of ſyrup or honey, and given in the morning. The child ſhould keep the houſe all day, and take nothing cold. This doſe may be repeated twice a-week for three or four weeks. On the intermediate days the child may take a ſcruple of powdered tin and ten grains of æthiops mineral in a ſpoonful of molaſſes twice a-day. This doſe muſt be increaſed or diminiſhed according to the age of the patient.

Biſſet ſays, the great baſtard black hellebore, or *bear's foot*, is a moſt powerful vermifuge for the long round worms. He orders the decoction of about a drachm of the green leaves, or about fifteen grains of the dried leaves in powder for a doſe to a child between four and ſeven years of age. This doſe is to be repeated two or three times. He adds, that the green leaves made into a ſyrup with coarſe ſugar, is almoſt the only medicine he has uſed for round worms for three years paſt. Before preſſing out the juice, he moiſtens the bruiſed leaves with vinegar, which corrects the medicine. The doſe is a tea-ſpoonful at bed-time, and one or two next morning.

I have frequently known thoſe big bellies, which in children are commonly reckoned a ſign of worms, quite removed by giving them white ſoap in their pottage, or other food. Tanſy, garlic, and rue, are all good againſt worms, and may be uſed various ways. We might here mention many other plants, both for external and internal uſe, as the cabage-bark, &c. but think the powder of tin with æthiops mineral,

mineral, and the purges of rhubarb and calomel, are more to be depended on. Perhaps there is no medicine more powerful, in theſe caſes, and at the ſame time more ſafe, than from two to eight grains of ſal martis, with five grains of iron filings, twice a-day, for ſeveral days, in a little ſyrup or molaſſes.

Ball's purging vermifuge powder is a very powerful medicine. It is made of equal parts of rhubarb, ſcammony, and calomel, with as much double refined ſugar as is equal to the weight of all the other ingredients. Theſe muſt be well mixed together, and reduced to a fine powder. The doſe for a child is from ten grains to twenty, once or twice a-week. An adult may take a drachm for a doſe*.

Parents who would preſerve their children from worms, ought to allow them plenty of exerciſe in the open air; to take care that their food be wholeſome and ſufficiently ſolid; and, as far as poſſible, to prevent their eating raw herbs, roots, or green traſhy fruits. It will not be amiſs, ſometimes, to allow a child who is ſubject to worms, a glaſs of red wine after meals; as every thing that braces and ſtrengthens the ſtomach is good both for preventing and expelling theſe vermin†.

* A powder for the tape-worm, was long kept a ſecret on the Continent; it was lately purchaſed by the French king, and will be found under the article *Powder*, in the Appendix.

† We think it neceſſary here to warn people of their danger who buy cakes, powders, and other worm medicines, at random from quacks, and give them to their children without proper care. The principal ingredients in moſt of theſe medicines is mercury, which is never to be trifled with. I lately ſaw a ſhocking inſtance of the danger of this conduct. A girl who had taken a doſe of worm powder, bought of a travelling quack, went out, and perhaps was ſo imprudent as to drink cold water, during its operation. She immediately ſwelled, and died on the following day, with all the ſymptoms of having been poiſoned.

CHAP.

CHAP. XXXVII.

Of the Jaundice.

THIS diſeaſe is firſt obſervable in the white of the eye, which appears yellow. Afterwards the whole ſkin puts on a yellow appearance. The urine, too, is of a ſaffron hue, and dies a white cloth of the ſame colour. There is likewiſe a ſpecies of this diſeaſe called the Black Jaundice.

CAUSES.—The immediate cauſe of the jaundice is an obſtruction of the bile. The remote or occaſional cauſes are, the bites of poiſonous animals, as the viper, the mad dog, &c. the bilious or hyſteric colic; violent paſſions, as grief, anger, &c. Strong purges or vomits will likewiſe occaſion the jaundice. Sometimes it proceeds from obſtinate agues, or from that diſeaſe being prematurely ſtopped by aſtringent medicines; alſo from affections of the liver and biliary ducts. In infants it is often occaſioned by the *meconium* not being ſufficiently purged off. Pregnant women are very ſubject to it. It is likewiſe a ſymptom in ſeveral kinds of fever. Catching cold, or the ſtoppage of cuſtomary evacuations, as the *menſes*, the bleeding piles, iſſues, &c. will occaſion the jaundice.

SYMPTOMS.—The patient at firſt complains of exceſſive wearineſs, and has great averſion to every kind of motion. His ſkin is dry, and he generally feels a kind of itching or pricking pain over the whole body. The ſtools are of a whitiſh or clay colour, and the urine, as was obſerved above, is yellow. The breathing is difficult, and the patient complains of an unuſual load or oppreſſion on his breaſt, often attended with great deſpondency. There is a

heat

is a heat in the noſtrils, a bitter taſte in the mouth, loathing of food, ſickneſs at the ſtomach, vomiting, flatulency, and other ſymptoms of indigeſtion.

If the patient be young, and the diſeaſe complicated with no other malady, it is ſeldom dangerous; but in old people, where it continues long, returns frequently, or is complicated with the dropſy or hypochondriac ſymptoms, it often proves fatal. The black jaundice, or vomiting of a dark coloured fluid, is more dangerous than the yellow.

REGIMEN.—The diet ſhould be cool, light, and diluting, conſiſting chiefly of ripe fruits and mild vegetables; as apples boiled or roaſted, ſtewed prunes, preſerved plums, boiled ſpinage, &c. Veal or chicken-broth, with light bread, are likewiſe very proper. Many have been cured by living almoſt wholly for ſome days on raw eggs. The drink ſhould be buttermilk, whey ſweetened with honey, or decoctions of cool opening vegetables; or marſh-mallow roots, with liquorice, &c.

The patient ſhould take as much exerciſe as he can bear, either on horſeback or in a carriage; walking, running, and even jumping, are likewiſe proper, provided he can bear them without pain, and there be no ſymptoms of inflammation. Patients have been often cured of this diſeaſe by a long journey, after medicines had proved ineffectual.

Amuſements are likewiſe of great uſe in the jaundice. The diſeaſe is often occaſioned by a ſedentary life, joined to a dull melancholy diſpoſition. Whatever therefore tends to promote the circulation, and to cheer the ſpirits, muſt have a good effect, as dancing, laughing, ſinging, &c.

MEDICINE.—If the patient be young, of a full ſanguine habit, and complains of pain in the right ſide about the region of the liver, bleeding will be neceſſary. If bleeding does not relieve, a bliſter ſhould be

be applied directly to the painful part. The body muſt likewiſe be kept open by taking a ſufficient quantity of Caſtile ſoap, or the pills for the jaundice recommended in the Appendix.

Fomenting the parts about the region of the ſtomach and liver, and rubbing them with a warm hand or fleſh-bruſh, are likewiſe beneficial; but it is ſtill more ſo for the patient to ſit in a bath of warm water up to the breaſt. He ought to do this frequently, and ſhould continue in it as long as his ſtrength will permit; but if the pain continues violent, it will be neceſſary to have recourſe to the liquid laudanum.

Many dirty things are recommended for the cure of the jaundice; as lice, millepedes, &c. But theſe do more harm than good, as people truſt to them, and neglect more valuable medicines; beſides, they are ſeldom taken in ſufficient quantity to produce any effects. People always expect that ſuch things ſhould act as charms, and conſequently ſeldom perſiſt in the uſe of them. Bleeding, purges, fomentations, and exerciſe, will ſeldom fail to cure the jaundice when it is a ſimple diſeaſe, and when complicated with the dropſy, a ſchirrous liver, or other chronic complaints, it requires a more particular treatment.

Numberleſs Britiſh herbs are extolled for the cure of this diſeaſe. The author of the *Medicina Britannica* mentions near an hundred, all famous for curing the jaundice. The fact is, the diſeaſe often goes off of its own accord; in which caſe the laſt medicine is always ſaid to have performed the cure. I have ſometimes however ſeen conſiderable benefit, in a very obſtinate jaundice, from a decoction of hempſeed. Four ounces of the ſeed may be boiled in two Engliſh quarts of ale, and ſweetened with coarſe ſugar. The doſe is half an Engliſh pint every

every morning. It may be continued for eight or nine days.

I have likewiſe known Harrowgate ſulphur-water cure a jaundice of very long ſtanding. It ſhould be uſed for ſome weeks, and the patient muſt both drink and bathe.

The ſoluble tartar is a very proper medicine in the jaundice. A drachm of it may be taken every night and morning in a cup of tea or water-gruel. If it does not open the body, the doſe may be increaſed.

Perſons ſubject to the jaundice ought to take as much exerciſe as poſſible, and to avoid all heating and aſtringent aliments.

CHAP. XXXVIII

Of the Dropſy.

THE dropſy is a preternatural ſwelling of the whole body, or ſome part of it, occaſioned by a collection of watery humor. It is diſtinguiſhed by different names, according to the part affected, as the *anaſarca*, or a collection of water under the ſkin; the *aſcites* or a collection of water in the belly; the *hydrops pectoris*, or dropſy of the breaſt; the *hydrocephalus*, or dropſy of the brain, &c.

CAUSES.—The dropſy is often owing to an hereditary diſpoſition. It may likewiſe proceed from drinking ardent ſpirits, or other ſtrong liquors. It is true almoſt to a proverb, that great drinkers die of a dropſy. The want of exerciſe is alſo a very common cauſe of the dropſy. Hence it is juſtly reckoned

reckoned among the diſeaſes of the ſedentary. It ſometimes proceeds from exceſſive evacuations, as frequent and copious bleedings, ſtrong purges often repeated, frequent ſalivations, &c. The ſudden ſtoppage of cuſtomary or neceſſary evacuations, as the *menſes*, the hæmorrhoids, fluxes of the belly, &c. may likewiſe cauſe a dropſy.

I have known the dropſy occaſioned by drinking large quantities of cold, weak, watery liquor, when the body was heated by violent exerciſe. A low, damp, or marſhy ſituation is likewiſe a frequent cauſe of it. Hence it is a common diſeaſe in moiſt, flat, fenny countries. It may alſo be brought on by a long uſe of poor watery diet, or of viſcous aliment that is hard of digeſtion. It is very often the effect of other diſeaſes, as the jaundice, a ſchirrus of the liver, a violent ague of long continuance, a diarrhœa, a dyſentery, an empyema, or a conſumption of the lungs. In ſhort, whatever obſtructs the perſpiration, or prevents the blood from being duly prepared, may occaſion a dropſy.

SYMPTOMS.—The *anaſarca* generally begins with a ſwelling of the feet and ancles towards night, which for ſome time diſappears in the morning. In the evening, the parts, if preſſed with the finger, will pit. The ſwelling gradually aſcends, and occupies the trunk of the body, the arms, and the head. Afterwards the breathing becomes difficult, the urine is in ſmall quantity, and the thirſt great; the body is bound, and the perſpiration is greatly obſtructed. To theſe ſucceed torpor, heavineſs, a ſlow waſting fever, and a troubleſome cough. This laſt is generally a bad ſymptom, as it ſhows that the lungs are affected.

In an *aſcites*, beſides the above ſymptoms, there is a ſwelling of the belly, and often a fluctuation, which may be perceived by ſtriking the belly on

one ſide, and laying the palm of the hand on the oppoſite. This may be diſtinguiſhed from a *tympany* by the weight of the ſwelling, as well as by the fluctuation. When the *anaſarca* and *aſcites* are combined, the caſe is more dangerous. Even a ſimple *aſcites* too ſeldom admits of a radical cure.

When the diſeaſe comes ſuddenly on, and the patient is young and ſtrong, there is reaſon, however, to hope for a cure, eſpecially if medicine be given early. But if the patient be old, has led an irregular or a ſedentary life, or if there be reaſon to ſuſpect that the liver, lungs, or any of the viſcera are unſound, there is great reaſon to fear that the conſequences will prove fatal.

REGIMEN.—The patient muſt abſtain as much as poſſible from all drink, eſpecially weak and watery liquors, and muſt quench his thirſt with muſtard-whey, or acids, as juice of lemons, oranges, ſorrel, or ſuch like. His aliment ought to be dry, of a ſtimulating and diuretic quality, as toaſted bread, the fleſh of birds, or other wild animals, roaſted; pungent and aromatic vegetables, as garlic, muſtard, onions, creſſes, horſe-radiſh, rocambole, ſhalot, &c. He may alſo eat ſea-biſcuit, dipped in wine. This is not only nouriſhing, but tends to quench thirſt. Some have been actually cured of a dropſy from a total abſtinence from all liquids, and living entirely upon ſuch things as are mentioned above. If the patient muſt have drink, the Spa-water, or Rheniſh wine, with diuretic medicines infuſed in it, are the beſt. There are, however, many diuretic medicines which require a large quantity of drink to make them operate.

Exerciſe is of the greateſt importance in a dropſy. If the patient be able to walk, dig, or the like, he ought to continue theſe exerciſes as long as he can. If he is not able to walk or labour, he muſt ride on horſeback,

horſeback, or in a carriage; and the more violent the motion ſo much the better, provided he can bear it. His bed ought to be hard and the air of his apartments warm and dry. If he lives in a damp country, he ought to be removed into a dry one, and, if poſſible, into a warmer climate. In a word, every method ſhould be taken to promote the perſpiration, and to brace the ſolids. For this purpoſe it will likewiſe be proper to rub the patient's body, two or three times a-day, with a hard cloth, or the fleſh-bruſh; and he ought conſtantly to wear flannel next his ſkin. Theſe obſervations apply to the cure of dropſy, attended with the common ſymptoms of weakneſs. For there are many caſes of dropſy in which the pulſe evidently indicates bleeding and the remedies proper for inflammatory diſeaſes.

MEDICINE.—If the patient be young, his conſtitution good, and the diſeaſe has come on ſuddenly, it may generally be removed by bleeding, briſk purges, and ſuch medicines as promote a diſcharge by ſweat and urine.

The patient may take the following purge: Jalap in powder half a drachm, cream of tartar, two drachms, calomel ſix grains. Theſe may be made into a bolus with a little ſyrup of pale roſes, and taken early in the morning.

The patient may likewiſe take every night at bed-time the following bolus: To four or five grains of camphor add one grain of opium, and as much ſyrup of orange-peel as is ſufficient to make them into a bolus. This will generally promote a gentle ſweat, which ſhould be encouraged by drinking now and then a ſmall cup of wine-whey, with a tea-ſpoonful of the ſpirits of hartſhorn in it. A tea-cupful of the following diuretic infuſion may likewiſe be taken every four or five hours through the day:

Take

Take juniper berries, muſtard-ſeed, and horſe-radiſh, of each half an ounce, aſhes of broom half a pound; infuſe them in a quart of Rheniſh wine or ſtrong ale, for a few days, and afterwards ſtrain off the liquor. Such as cannot take this infuſion, may uſe the decoction of ſeneka-root, which is both diuretic and ſudorific. I have known an obſtinate *anaſarca* cured by an infuſion of the aſhes of broom in wine.

The above courſe will often cure an incidental dropſy, if the conſtitution be good; but when the diſeaſe proceeds from a bad habit, or an unſound ſtate of the viſcera, ſtrong purges are not to be ventured upon. In this caſe, the ſafer courſe is to palliate the ſymptoms, by the uſe of ſuch medicines as promote the ſecretions, and to ſupport the patient's ſtrength by warm and nouriſhing cordials.

The ſecretion of urine may be greatly promoted by nitre. Brookes ſays, he knew a young woman who was cured of a dropſy by taking a drachm of nitre every morning in a draught of ale, after ſhe had been given over as incurable. The powder of ſquills is likewiſe a good diuretic. Six or eight grains of it, with a ſcruple of nitre, may be given twice a-day in a glaſs of ſtrong cinnamon-water. Ball ſays, a large ſpoonful of unbruiſed muſtard-ſeed taken every night and morning, and drinking half a pint of the decoction of the tops of green broom after it, has performed a cure after other powerful medicines had proved ineffectual.

I have often ſeen good effects from cream of tartar in this diſeaſe. It promotes the diſcharges by ſtool and urine, it will at leaſt palliate, and often perform a cure. The patient may begin by taking an ounce every ſecond or third day, and may increaſe the quantity to two, or even to three ounces, if the ſtomach will bear it. This quantity is not, however, to be taken at once, but divided into three

or four doſes, and drink freely of camomile tea, or any diluting liquor. The fox-glove, taken in doſes of two or three grains, night and morning, for five or ſix days, will prove more diuretic than moſt other remedies. It will be neceſſary to drink very freely of camomile-tea, weak wine and water, or any other drink of this kind, to promote its operation. Indeed, this is neceſſary, when we uſe any kind of diuretics. If the fox-glove either does not prove diuretic in a few days, or if it produces a flowneſs in the pulſe, its uſe muſt be diſcontinued. In pure aſcites diuretics do no good.

To promote perſpiration, the patient may uſe the decoction of ſeneka-root, as directed above; or he may take two table-ſpoonfuls of Mindererus's ſpirit, in a cup of wine-whey, three or four times a-day. To promote a diſcharge of urine, the following infuſion of the London hoſpitals will likewiſe be beneficial:

Take of zedoary root two drachms; dried ſquills, rhubarb, and juniper-berries bruiſed, of each a drachm; cinnamon in powder, three drachms; ſalt of wormwood, a drachm and a half; infuſe in a pint and a half of old hock wine, and when fit for uſe, filter the liquor. A wine-glaſs of it may be taken three or four times a-day.

In an *aſcites*, when the diſeaſe does not evidently and ſpeedily give way to purgative and diuretic medicines, the water ought to be let off by tapping. This is a very ſimple and ſafe operation, and would often ſucceed, if it were performed in due time; but if it be delayed till the humors are vitiated, or the bowels ſpoiled, by long ſoaking in water, it can hardly be expected that any permanent relief will be procured*. Aſcites is often relieved, and ſometimes cured, by rubbing the belly with ſweet-oil.

* The very name of an operation is dreadful to moſt people, and they wiſh to try every thing before they have recourſe to it. This is the reaſon why tapping ſeldom ſucceeds to our wiſh.

After the evacuation of the water, the patient is to be put on a courſe of ſtrengthening medicines; as the Peruvian bark; the elixir of vitriol; preparations of iron; warm aromatics, with a due proportion of rhubarb, infuſed in wine, and ſuch like. His diet ought to be dry and nouriſhing, ſuch as is recommended in the beginning of the Chapter; and he ſhould take as much exerciſe as he can bear without fatigue. He ſhould wear flannel next his ſkin, and make daily uſe of the fleſh-bruſh.

CHAP. XXXIX.

Of the Gout.

THERE is no diſeaſe which ſets the advantages of temperance and exerciſe in a ſtronger light, than the gout. Exceſs and idleneſs are the true ſources from whence it originally ſprung, and all who would avoid it muſt be *active* and *temperate*

Though idleneſs and intemperance are the principal cauſes of the gout, yet many other things may contribute to bring on the diſorder in thoſe who are not, and to induce a paroxyſm in thoſe who are ſubject to it; as intenſe ſtudy; too free an uſe of acidulated liquors; night-watching; grief or uneaſineſs of the mind; an obſtruction or defect of any of the cuſtomary diſcharges, as the *menſes*, ſweating of the feet, perſpiration, &c.

wiſh. I have had a patient who was regularly tapped, once a month, for ſeveral years, and who uſed to eat her dinner as well after the operation, as if nothing had happened. She died at laſt, rather worn out by age than by the diſeaſe.

SYMPTOMS.—A fit of the gout is generally preceded by indigeſtion, drowſineſs, belching of wind, a ſlight head-ach, ſickneſs, and ſometimes vomiting. The patient complains of wearineſs and dejection of ſpirits, and has often a pain in the limbs, with a ſenſation as if wind or cold water were paſſing down the thigh. The appetite is often remarkably keen a day or two before the fit, and there is a ſlight pain in paſſing urine, and ſometimes an involuntary ſhedding of tears. Sometimes theſe ſymptoms are much more violent, eſpecially upon the near approach of the fit; and ſome obſerve, that as is the fever which uſhers in the gout, ſo will the fit be; if the fever be ſhort and ſharp, the fit will be ſo likewiſe; if it be feeble, long, and lingering, the fit will be ſuch alſo. But this obſervation can only hold with reſpect to very regular fits of the gout.

The regular gout generally makes its attack in the ſpring, or beginning of winter, in the following manner: About two or three in the morning, the patient is ſeized with a pain in his great toe ſometimes in the heel, and at other times in the ankle or calf of the leg. This pain is accompanied with a ſenſation as if cold water were poured upon the part, which is ſucceeded by a ſhivering, with ſome degree of fever. Afterwards the pain increaſes, and fixing among the ſmall bones of the foot, the patient feels all the different kinds of torture, as if the part were ſtretched, burnt, ſqueezed, gnawed, or torn in pieces, &c. The part at length becomes ſo exquiſitely ſenſible, that the patient cannot bear to have it touched, or even ſuffer any perſon to walk acroſs the room.

The patient is generally in exquiſite torture for twenty-four hours, from the time of the coming on of the fit: he then becomes eaſier, the part begins

to

to ſwell, appears red, and is covered with a little moiſture. Towards morning he drops aſleep, and generally falls into a gentle breathing ſweat. This terminates the firſt paroxyſm, a number of which conſtitute a fit of the gout; which is longer or ſhorter according to the patient's age, ſtrength, the ſeaſon of the year, and the diſpoſition of the body to this diſeaſe.

The patient is always worſe towards night, and eaſier in the morning. The paroxyſms however generally grow milder every day, till at length the diſeaſe is carried off by perſpiration, urine, and the other evacuations. In ſome patients this happens in a few days; in others, it requires weeks, and in ſome, months, to finiſh the fit. Thoſe whom age and frequent fits of the gout have greatly debilitated, ſeldom get free from it before the approach of ſummer, and ſometimes not till it be pretty far advanced.

REGIMEN.—As there are no medicines yet known that will certainly *cure* the gout, we ſhall confine our obſervations chiefly to regimen, both in and out of the fit.

In the fit, if the patient be young and ſtrong, his diet ought to be thin and cooling, and his drink of a diluting nature; but where the conſtitution is weak, and the patient has been accuſtomed to live high, this is not a proper time to retrench. In this caſe he muſt keep nearly to his uſual diet, and ſhould take frequently a cup of ſtrong negus, or a glaſs of generous wine. Wine-whey is a very proper drink in this caſe, as it promotes the perſpiration without greatly heating the patient. It will anſwer this purpoſe better if a tea-ſpoonful of *ſal volatile oleoſum*, or ſpirits of hartſhorn, be put into a cup of it twice a-day. It will likewiſe be proper to give at bed-time two or three tea-ſpoonfuls

of the volatile tincture of *guaiacum* in a large draught of warm wine-whey. This will greatly promote perſpiration through the night.

As the moſt ſafe and efficacious method of diſcharging the gouty matter is by perſpiration, this ought to be kept up by all means, eſpecially in the affected part. For this purpoſe the leg and foot ſhould be wrapt in ſoft flannel, fur, or wool. The laſt is moſt readily obtained, and ſeems to anſwer the purpoſe better than any thing elſe. The people of Lancaſhire look upon wool as a kind of ſpecific in the gout. They wrap a great quantity of it about the leg and foot affected, and cover it with a ſkin of ſoft dreſſed leather. This they ſuffer to continue for eight or ten days, and ſometimes for a fortnight or three weeks, or longer, if the pain does not ceaſe. I never knew any external application anſwer ſo well in the gout. I have often ſeen it applied when the ſwelling and inflammation were very great, with violent pain, and have found all theſe ſymptoms relieved by it in a few days. The wool which they uſe is generally greaſed, and carded or combed. They chuſe the ſofteſt which can be had, and ſeldom or never remove it till the fit be entirely gone off. It is, however, neceſſary to obſerve, that too much heat is always hurtful. When flannel or wool produce perſpiration and give eaſe they are uſeful; but when they have not this effect, and increaſe the heat, they are improper.

The patient ought likewiſe to be kept quiet and eaſy during the fit. Every thing that affects the mind diſturbs the paroxyſm, and tends to throw the gout upon the nobler parts. All external applications that repel the matter, are to be avoided as death. They do not cure the diſeaſe, but remove it from a ſafer to a more dangerous part of the body, where it often proves fatal. A fit of the gout is to be

conſidered

conſidered as Nature's method of removing ſomething that might prove deſtructive to the body, and all that we can do, with ſafety, is to promote her intentions, and to aſſiſt her in expelling the enemy in her own way. Evacuations by bleeding, ſtool, &c. are likewiſe to be uſed with caution; they do not remove the cauſe of the diſeaſe, and ſometimes by weakening the patient, prolong the fit: but where the conſtitution is able to bear it, it will be of uſe to keep the body gently open by diet, or very mild laxative medicines. It may, however, be laid down as a general rule, that, where the pulſe is ſtrong or tenſe, bleeding is abſolutely neceſſary, as well as purging, in thoſe caſes where the gout aſſumes the form of apolepxy, pleuriſy, ſtrangury, &c.

Many things will indeed ſhorten a fit of the gout, and ſome will drive it off altogether: but nothing has yet been found which will do this with ſafety to the patient. In pain we eagerly graſp at any thing that promiſes immediate eaſe, and even hazard life itſelf for a temporary relief. This is the true reaſon why ſo many infallible remedies have been propoſed for the gout, and why ſuch numbers have loſt their lives by the uſe of them. It would be as prudent to ſtop the ſmall-pox from riſing, and to drive them into the blood, as to attempt to repel the gouty matter after it has been thrown upon the extremities. The latter is as much an effort of Nature to free herſelf from an offending cauſe, as the former, and ought equally to be promoted.

When the pain, however, is very great, and the patient is reſtleſs, thirty or forty drops of laudanum, more or leſs, according to the violence of the ſymptoms, may be taken at bed-time. This will eaſe the pain, procure reſt, promote perſpiration, and forward the criſis of the diſeaſe.

After the fit is over, the patient, if he is in a weak ſtate, ought to take a gentle doſe or two of the bitter

tincture of rhubarb, or ſome other warm ſtomachic purge. He ſhould alſo drink a weak infuſion of ſtomachic bitters in ſmall wine, as the Peruvian bark, with cinnamon, Virginian ſnake-root, and orange-peel. The diet at this time ſhould be light, but nouriſhing, and gentle exercife ought to be taken on horſeback, or in a carriage.

Out of the fit, it is in the patient's power to do many things towards preventing a return of the diſorder, or rendering the fit, if it ſhould return, leſs ſevere. This, however, is not to be attempted by medicine. I have frequently known the gout kept off for ſeveral years by the Peruvian bark and other aſtringent medicines; but in all the caſes where I had occaſion to ſee this tried, the perſons died ſuddenly, and, to all appearance, for want of a regular fit of the gout. One would be apt, from hence, to conclude, that a fit of the gout, to ſome conſtitutions, in the decline of life, is rather ſalutary than hurtful.

Though it may be dangerous to ſtop a fit of the gout by medicine, yet if the conſtitution can be ſo changed by diet and exerciſe, as to leſſen or totally prevent its return, there certainly can be no danger in following ſuch a courſe. It is well known that the whole habit may be ſo altered by a proper regimen, as quite to eradicate this diſeaſe; and thoſe only who have ſufficient reſolution to perſiſt in ſuch a courſe, have reaſon to expect a cure.

The courſe which we would recommend for preventing the gout, is as follows: In the firſt place, *univerſal temperance*. In the next place *ſufficient exerciſe**. By this we do not mean ſauntering about

* Some make a ſecret of curing the gout by *muſcular exerciſe*. This ſecret, however, is as old as Celſus, who ſtrongly recommended that mode of cure; and whoever will ſubmit to it, in the fulleſt extent, may expect to reap ſolid and permanent advantages.

in an indolent manner, but labour, ſweat, and toil. Theſe only can render the humors wholeſome, and keep them ſo. Going early to bed, and riſing betimes, are alſo of great importance. It is likewiſe proper to avoid night ſtudies, and all intenſe thought. The ſupper ſhould be light, and taken early. All ſtrong liquors, eſpecially generous wines and ſour punch, are to be avoided.

We would likewiſe recommend ſome doſes of *magneſia alba* and rhubarb to be taken every ſpring and autumn; and afterwards, if the ſtomach is weak, a courſe of ſtomachic bitters, as tanſey or water-trefoil tea, an infuſion of gentian and camomile flowers, or a decoction of burdock root, &c. Any of theſe, or an infuſion of any wholeſome bitter that is more agreeable to the patient, may be drank for two or three weeks in March and October twice a-day. An iſſue or perpetual bliſter has a great tendency to prevent the gout. If theſe were more generally uſed in the decline of life, they would not only often prevent the gout, but alſo other chronic maladies. Such as can afford to go to Bath, will find great benefit from bathing and drinking the water. It both promotes digeſtion, and invigorates the habit.

Though there is little room for medicine during a regular fit of the gout, yet when it leaves the extremities and falls on ſome of the internal parts, proper applications to recal and fix it, become abſolutely neceſſary. When the gout affects the head, the pain of the joints ceaſes, and the ſwelling diſappears, while either ſevere head-ach, drowſineſs, trembling, giddineſs, convulſions, or delirium come on. When it ſeizes the lungs, great oppreſſion, with cough and difficulty of breathing, enſue. If it attacks the ſtomach, extreme ſickneſs, vomiting, anxiety, pain in the epigaſtric region, and total loſs of ſtrength, will ſucceed.

When

When the gout attacks the head or lungs, every method muſt be taken to fix it in the feet. They muſt be frequently bathed in warm water, and acrid cataplaſms made of equal parts of the flour of muſtard and rye-meal, mixed with hot vinegar, applied to the ſoles. Bliſtering-plaſters may likewiſe be applied to the ankles or calves of the legs. Bleeding is alſo neceſſary, and purges. The patient ought to keep in bed for the moſt part, if there be any ſigns of inflammation, and ſhould be very careful not to catch cold.

If it attacks the ſtomach with a ſenſe of cold, the moſt warm cordials are neceſſary; as ſtrong wine boiled up with cinnamon or other ſpices; cinnamon-water; peppermint-water, or a tea-ſpoonful of ether every hour in a little water, with the addition of fifteen or twenty drops of laudanum to every doſe if there is much pain. The patient ſhould keep his bed, and endeavour to promote a ſweat by drinking warm liquors.

When the gout attacks the kidneys, and imitates gravel pains, the patient ought to drink freely of a decoction of marſh-mallows, and to have the parts fomented with warm water. An emollient clyſter ought likewiſe to be given, and afterwards an opiate. If the pain be very violent, twenty or thirty drops of laudanum may be taken in a cup of the decoction.

Perſons who have had the gout ſhould be very attentive to any complaints that may happen to them about the time when they have reaſon to expect a return of the fit. The gout imitates many other diſorders, and by being miſtaken for them, and treated improperly, is often diverted from its regular courſe, to the great danger of the patient's life.

Thoſe who never had the gout, but who, from their conſtitution or manner of living, have reaſon to expect it, ought likewiſe to be very circumſpect with regard to its firſt approach. If the diſeaſe, by

wrong

wrong conduct or improper medicines, be diverted from its proper courſe, the miſerable patient has a chance to be ever after tormented with head-achs, coughs, pains of the ſtomach and inteſtines; and to fall at laſt a victim to its attack upon ſome of the more noble parts. When the gout attacks any part beſides the feet, without ſymptoms of inflammation, unleſs indeed it is in the ſtomach, the tincture of guaiacum will be found of great ſervice.

OF THE RHEUMATISM.

This diſeaſe has often a reſemblance to the gout. It generally attacks the muſcles and large joints with exquiſite pain, and is ſometimes attended with inflammation and ſwelling. It is moſt common in the ſpring, and towards the end of autumn. It is uſually diſtinguiſhed into acute and chronic; or the rheumatiſm with and without a fever.

CAUSES.—The cauſes of a rheumatiſm are frequently the ſame as thoſe of an inflammatory fever, *viz.* an obſtructed perſpiration, the immoderate uſe of ſtrong liquors, and the like. Sudden changes of the weather, and all quick tranſitions from heat to cold, are very apt to occaſion the rheumatiſm. The moſt extraordinary caſe of a rheumatiſm that I ever ſaw, where almoſt every joint of the body was diſtorted, was that of a man who uſed to work one part of the day by the fire, and the other part of it in the water. Very obſtinate rheumatiſms have likewiſe been brought on by perſons not accuſtomed to it, allowing their feet to continue long wet. The ſame effects are often produced by wet clothes, damp beds, ſitting or lying on the damp ground, travelling in the night, &c.

The rheumatiſm may likewiſe be occaſioned by exceſſive evacuations, or the ſtoppage of cuſtomary diſcharges,

diſcharges. It is often the effect of chronic diſeaſes, which vitiate the humors; as the ſcurvy, the *lues venerea*, obſtinate autumnal agues, &c.

The rheumatiſm prevails in cold, damp, marſhy countries. It is moſt common among the poorer ſort of peaſants, who are ill cloathed, live in low damp houſes, and eat coarſe unwholeſome food, which contains but little nouriſhment, and is not eaſily digeſted.

SYMPTOMS.—The *acute* rheumatiſm commonly begins with wearineſs, ſhivering, a quick pulſe, reſtleſſneſs, thirſt, and other ſymptoms of fever. Afterwards the patient complains of flying pains, which are increaſed by the leaſt motion. Theſe at length fix in the joints, which are often affected with ſwelling and inflammation. If blood be let in this diſeaſe, it has generally the ſame appearance as in the pleuriſy.

In this kind of rheumatiſm the treatment of the patient is nearly the ſame as in an acute or inflammatory fever. If he be young and ſtrong, bleeding is neceſſary, which may be repeated according to the exigencies of the caſe. The body ought likewiſe to be kept open by emollient clyſters, or cool opening liquors; as decoctions of tamarinds, cream of tartar whey, ſenna-tea, and the like. The diet ſhould be light and in ſmall quantity, conſiſting chiefly of roaſted apples, oatmeal-gruel, or weak chicken-broth. After the feveriſh ſymptoms have abated, if the pain ſtill continues the patient muſt keep his bed, and take ſuch things as promote perſpiration; as wine-whey with *ſpiritus Mindereri*, &c. He may likewiſe take, for a few nights, at bed-time, in a cup of weak wine-whey, a drachm of the cream of tartar, and half a drachm of gum guaiacum in powder*.

* Smart purging in rheumatiſm is generally of very eſſential ſervice.

Warm

Warm bathing, after proper evacuations, has often an exceeding good effect. The patient may either be put into a bath of warm water, or have cloths wrung out of it applied to the parts affected. Great care muſt be taken that he do not catch cold after bathing.

The *chronic* rheumatiſm is ſeldom attended with any conſiderable degree of fever, and is generally confined to ſome particular part of the body, as the ſhoulders, the back, or the loins. There is ſeldom any inflammation or ſwelling in this caſe. Perſons in the decline of life are moſt ſubject to the chronic rheumatiſm. In ſuch patients it often proves extremely obſtinate.

In this kind of rheumatiſm the regimen ſhould be nearly the ſame as in the acute. Cool and diluting diet, conſiſting chiefly of vegetable ſubſtances, as ſtewed prunes, coddled apples, currants or gooſeberries boiled in milk, is moſt proper. Arbuthnot ſays, "If there be a ſpecific in aliment for the rheumatiſm, it is certainly whey;" and adds, "That he knew a perſon ſubject to this diſeaſe, who could never be cured by any other method but a diet of whey and bread." He likewiſe ſays, "That cream of tartar in water-gruel, taken for ſeveral days, will eaſe rheumatic pains conſiderably." This I have often experienced, but found it always more efficacious when joined with gum guaiacum, as already directed. In this caſe the patient may take the doſe formerly mentioned twice a-day, and likewiſe two tea-ſpoons full of the volatile tincture of gum guaiacum, at bed-time, in wine-whey.

This courſe may be continued for a week, or longer, if the caſe proves obſtinate, and the patient's ſtrength will permit. It ought then to be omitted for a few days, and repeated again. At the ſame time leeches or a bliſtering-plaſter may be applied to

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the part affected. What I have generally found answer better than either of these, in obstinate fixed rheumatic pains, is the *warm plaster**. I have likewise known a plaster of Burgundy pitch worn for some time on the part affected give great relief in rheumatic pains. My ingenious friend, Dr. Alexander of Edinburgh, says, he has frequently cured very obstinate rheumatic pains by rubbing the part affected with tincture of cantharides. When the common tincture did not succeed, he used it of a double or treble strength. Cupping upon the part affected, is likewise often very beneficial, and is greatly preferable to the application of leeches.

Though this disease may not seem to yield to medicines for some time, yet they ought still to be persisted in. Persons who are subject to frequent returns of the rheumatism, will often find their account in using medicines, whether they be immediately affected with the disease or not. The chronic rheumatism is similar to the gout in this respect, that the most proper time for using medicines to extirpate it, is when the patient is most free from the disorder.

To those who can afford the expence, I would recommend the warm baths of Buxton or Matlock in Derbyshire. These have often, to my knowledge, cured very obstinate rheumatisms, and are always safe either in or out of the fit. When the rheumatism is complicated with scorbutic complaints, which is not seldom the case, the Harrowgate waters, and those of Moffat, are proper. They should both be drank and used as a warm bath.

There are several of our own domestic plants which may be used with advantage in the rheumatism. One of the best is the white *mustard*. A tablespoonful of the seed of this plant may be taken twice

* See Appendix, *Warm Plaster*. 694

or thrice a-day, in a glaſs of water or ſmall wine. The water trefoil is likewiſe of great uſe in this complaint. It may be infuſed in wine, or drank in form of tea. The ground-ivy, camomile, and ſeveral other bitters, are alſo beneficial, and may be uſed in the ſame manner. No benefit however is to be expected from theſe unleſs they be taken for a conſiderable time. Excellent medicines are often deſpiſed in this diſeaſe, becauſe they do not perform an immediate cure; whereas nothing would be more certain than their effect, were they duly perſiſted in. Want of perſeverance in the uſe of medicines is one reaſon why chronic diſeaſes are ſo ſeldom cured.

Cold bathing, eſpecially in ſalt water, often cures the rheumatiſm. We would alſo recommend riding or horſeback, and wearing flannel next the ſkin. Iſſues are likewiſe very proper, eſpecially in chronic caſes. If the pain affects the ſhoulders, an iſſue may be made in the arm; but if it affects the loins, it ſhould be put into the leg or thigh.

Perſons afflicted with the ſcurvy are very ſubject to rheumatic complaints. The beſt medicines in this caſe are bitters and mild purgatives. Theſe may either be taken ſeparately or together, as the patient inclines. An ounce of Peruvian bark, and half an ounce of rhubarb in powder, may be infuſed in a bottle of wine; and one, two, or three wine glaſſes of it taken daily, as ſhall be found neceſſary, for keeping the body gently open. In caſes where the bark itſelf proves ſufficiently purgative, the rhubarb may be omitted.

Such as are ſubject to frequent attacks of the rheumatiſm ought to make choice of a dry, warm ſituation, to avoid the night-air, wet clothes, and wet feet, as much as poſſible. Their clothing ſhould be warm, and they ſhould wear flannel next their ſkin, and make frequent uſe of the fleſh bruſh.

Chronic

Chronic rheumatic affections often appear in the form of ſpaſms of different parts, with violent pain. This kind is moſt certainly relieved by the balſam of Peru, balſam copaivi, or ſpirits of turpentine, from thirty to ſixty drops for a doſe, dropped on ſugar and mixed with wine or water, twice or three times a-day.

CHAP. XL.

Of the Scurvy.

THIS diſeaſe prevails chiefly in cold northern countries, eſpecially in low damp ſituations, near large marſhes, or great quantities of ſtagnating water. Sedentary people of a dull melancholy diſpoſition, are moſt ſubject to it. It proves often fatal to ſailors on long voyages, particularly in ſhips that are not properly ventilated, have many people on board, or where cleanlineſs is neglected.

It is not neceſſary to mention the different ſpecies into which this diſeaſe has been divided, as they differ from one another chiefly in degree. What is called the *land ſcurvy*, however, is ſeldom attended with thoſe highly putrid ſymptoms which appear in patients who have been long at ſea, and which, we preſume, are rather owing to confined air, want of exerciſe, and the unwholeſome food eaten by ſailors on long voyages, than to any ſpecific difference in the diſeaſe.

CAUSES.—The ſcurvy is occaſioned by cold moiſt air; by the long uſe of ſalted or ſmoke-dried proviſions, or any kind of food that is hard of digeſtion,

geſtion, and affords little nouriſhment. It may alſo proceed from the ſuppreſſion of cuſtomary evacuations; as the *menſes*, the hæmorrhoidal flux, &c. It is ſometimes owing to an hereditary taint, in which caſe a very ſmall cauſe will excite the latent diſorder. Grief, fear, and other depreſſing paſſions, have a great tendency both to excite and aggravate this diſeaſe. The ſame obſervation holds, with regard to neglect of cleanlineſs; bad cloathing; the want of proper exerciſe; confined air; unwholeſome food; or any diſeaſe which greatly weakens the body, or vitiates the humors.

SYMPTOMS.—This diſeaſe may be known by unuſual wearineſs, heavineſs, and difficulty of breathing, eſpecially after motion; rottenneſs of the gums, which are apt to bleed on the ſlighteſt touch; a ſtinking breath; frequent bleeding at the noſe; crackling of the joints; difficulty of walking; ſometimes a ſwelling and ſometimes a falling away of the legs, on which there are livid, yellow, or violet-coloured ſpots; the face is generally of a pale or leaden colour. As the diſeaſe advances, other ſymptoms come on; as rottenneſs of the teeth, hæmorrhages, or diſcharges of blood from different parts of the body, foul obſtinate ulcers, pains in various parts, eſpecially about the breaſt, dry ſcaly eruptions all over the body, &c. At laſt a waſting or hectic fever comes on, and the miſerable patient is often carried off by a dyſentery, a diarrhœa, a dropſy, the palſy, fainting fits, or a mortification of ſome of the bowels.

CURE.—We know no way of curing this diſeaſe, but by purſuing a plan directly oppoſite to that which brings it on. It proceeds from a vitiated ſtate of the humors occaſioned by errors in diet, air, or exerciſe; and this cannot be removed, but by a proper attention to theſe important articles.

If the patient has been obliged to breathe a cold, damp, or confined air, he ſhould be removed, as ſoon as poſſible, to a dry, open, and moderately warm one. If there is reaſon to believe that the diſeaſe proceeds from a ſedentary life, or depreſſing paſſions, as grief, fear, &c. the patient muſt take daily as much exerciſe in the open air as he can bear, and his mind ſhould be diverted by cheerful company and other amuſements. Nothing has a greater tendency, either to prevent or remove this diſeaſe, than conſtant cheerfulneſs and good humor. But this, alas! is ſeldom the lot of perſons afflicted with the ſcurvy; they are generally ſurly, peeviſh, and moroſe.

When the ſcurvy has been brought on by a long uſe of ſalted proviſions, the proper medicine is a diet conſiſting chiefly of freſh vegetables; as oranges, apples, lemons, limes, tamarinds, water-creſſes, ſcurvy-graſs, brook-lime, &c. The uſe of theſe, with milk, pot-herbs, new bread, and freſh beer or cyder, will ſeldom fail to remove a ſcurvy of this kind, if taken before it be too far advanced; but to have this effect, they muſt be perſiſted in for a conſiderable time. When freſh vegetables cannot be obtained, pickled or preſerved ones may be uſed; and where theſe are wanting, recourſe muſt be had to the chymical acids. All the patient's food and drink ſhould, in this caſe, be ſharpened with cream of tartar, elixir of vitriol, vinegar, or the ſpirit of ſea-ſalt.

Theſe things, however, will more certainly prevent than cure the ſcurvy; for which reaſon, ſea-faring people, eſpecially on long voyages, ought to lay in plenty of them. Cabbages, onions, gooſeberries, and many other vegetables, may be kept a long time by *pickling*, *preſerving*, &c. potatoes will keep for a long time with little trouble; and when theſe fail, the chymical acids, recommended above,

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which will keep for any length of time, may be uſed. We have reaſon to believe, if ſhips were well ventilated, had good ſtore of fruits, greens, cyder, &c. laid in, and if proper regard were paid to cleanlineſs and warmth, that ſailors would be the moſt healthy people in the world, and would ſeldom ſuffer either from the ſcurvy or putrid fevers, which are ſo fatal to that uſeful ſet of men, but it is too much the temper of ſuch people to deſpiſe all precaution; they will not think of any calamity 'till it overtakes them, when it is too late to ward off the blow.

It muſt, indeed, be owned, that many of them have it not in their power to make the proviſion we are ſpeaking of; but, in this caſe, it is the duty of their employers to do it for them; and no man ought to engage in a long voyage, without having theſe articles ſecured.

I have often ſeen very extraordinary effects in the land-ſcurvy from a milk diet. This preparation of Nature, is a mixture of animal and vegetable properties, which, of all others, is the moſt fit for reſtoring a decayed conſtitution. But, people deſpiſe this wholeſome and nouriſhing food, becauſe it is cheap, and devour with greedineſs, fleſh, and fermented liquors, while milk is only deemed fit for their hogs.

The moſt proper drink in the ſcurvy is whey, or butter-milk. When theſe cannot be had, ſound cyder, perry, or ſpruce-beer, may be uſed. Wort has likewiſe been found to be a proper drink in the ſcurvy, and may be uſed at ſea, as malt will keep during the longeſt voyage. A decoction of the tops of the ſpruce fir, is likewiſe proper. It may be drank in the quantity of a pint, twice a-day. Tar-water may be uſed for the ſame purpoſe, or decoctions of any of the mild mucilaginous vegetables; as ſarſaparilla, marſh-mallow roots, &c. Infuſions of the bitter plants, as ground ivy, the leſſer centaury,

marſh-trefoil, &c. are likewiſe beneficial. I have ſeen the peaſants, in ſome parts of Britain, expreſs the juice of the laſt-mentioned plant, and drink it with good effect in thoſe foul ſcorbutic eruptions with which they are often troubled in the ſpring ſeaſon.

Harrowgate-water is certainly an excellent medicine in the land ſcurvy. I have often ſeen patients who had been reduced to the moſt deplorable condition by this diſeaſe, greatly relieved by drinking the ſulphur-water, and bathing in it. The chalybeate-water may alſo be uſed with advantage, eſpecially with a view to brace the ſtomach after drinking the ſulphur-water, which, though it ſharpens the appetite, never fails to weaken the powers of digeſtion.

A ſlight degree of ſcurvy may be carried off, by frequently ſucking a little of the juice of a bitter orange, or a lemon. When the diſeaſe affects the gums only, this practice, if continued for ſome time, will generally carry it off. We would, however, recommend the bitter orange as greatly preferable to lemon; it ſeems to be as good a medicine, and is not near ſo hurtful to the ſtomach. Perhaps our own ſorrel may be little inferior to either of them.

All kinds of ſallad are good in the ſcurvy, and ought to be eaten very plentifully, as ſpinnage, lettuce, parſley, cellery, endive, radiſh, dandelion, &c. It is amazing to ſee how ſoon freſh vegetables in the ſpring, cure the brute animals of any ſcab or foulneſs which is upon their ſkins. It is reaſonable to ſuppoſe, that their effects would be as great upon the human ſpecies, were they uſed in proper quantity, for a ſufficient length of time.

I have ſometimes ſeen good effects in ſcorbutic complaints of very long ſtanding, from the uſe of a decoction of the roots of water dock. It is uſually made by boiling a pound of the freſh root in ſix pints

pints of water, 'till about one-third of it be conſumed. The doſe is from half a pint to a whole pint of the decoction every day. But in all the caſes where I have ſeen it prove beneficial, it was made much ſtronger, and drank in larger quantities. The ſafeſt way, however, is for the patient to begin with ſmall doſes, and increaſe them both in ſtrength and quantity as he finds his ſtomach will bear it. It muſt be uſed for a conſiderable time. I have known ſome take it for many months, and have been told of others who had uſed it for ſeveral years, before they were ſenſible of any benefit, but who nevertheleſs were cured by it at length.

The leproſy, which was ſo common in this country long ago, ſeems to have been near a-kin to the ſcurvy. Perhaps its appearing ſo ſeldom now, may be owing to the inhabitants of Britain eating more vegetable food than formerly, living more upon tea and other diluting diet, uſing leſs ſalted meat, being more cleanly, better lodged and cloathed, &c.—For the cure of this diſeaſe we would recommend the ſame courſe of diet and medicines as in the ſcurvy.

OF THE SCROPHULA, OR KING's EVIL.

This diſeaſe chiefly affects the glands, eſpecially thoſe of the neck. Children and young perſons of a ſedentary life are very ſubject to it. It is one of thoſe diſeaſes which may be removed by proper regimen, but too ſeldom yields to medicine. The inhabitants of cold, damp, marſhy countries are moſt liable to the ſcrophula.

CAUSES.—This diſeaſe may proceed from an hereditary taint. Children who have the misfortune to be born of ſickly parents, whoſe conſtitutions have been greatly injured by the pox, or other chronic diſeaſes, are apt to be affected with the ſcrophula,

It may likewiſe proceed from ſuch diſeaſes as weaken the habit or vitiate the humors, as the ſmall-pox, meaſles, &c. External injuries, as blows, bruiſes, and the like, ſometimes produce ſcrophulous ulcers; but we have reaſon to believe, when this happens, that there has been a prediſpoſition in the habit to this diſeaſe. In ſhort, whatever tends to vitiate the humors or relax the ſolids, paves the way to the ſcrophula; as the want of proper exerciſe, too much heat or cold, confined air, unwholeſome food, bad water, the long uſe of poor, weak, watery aliments, the neglect of cleanlineſs, &c. Nothing tends more to induce this diſeaſe in children, than allowing them to continue long wet*.

SYMPTOMS.—At firſt ſmall knots appear under the chin or behind the ears, which gradually increaſe in number and ſize, till they form one large hard tumor. This often continues for a long time without breaking, and when it does break, it only diſcharges a thin *ſanies*, or watery humor. Other parts of the body are likewiſe liable to to its attack, as the arm-pits, groins, feet, hands, eyes, breaſts, &c. Nor are the internal parts exempt from it. It often affects the lungs, liver, or ſpleen; and I have frequently ſeen the glands of the meſentery greatly enlarged by it.

Thoſe obſtinate ulcers which break out upon the legs, feet, and hands, and indeed every part of the body, with ſwelling and little or no redneſs, are of the ſcrophulous kind. They ſeldom diſcharge good matter, and are exceedingly difficult to cure. The *white ſwellings* of the joints ſeem likewiſe to be of this kind. They are with difficulty brought to a ſuppuration, and when opened they only diſcharge a

* The ſcrophula, as well as the rickets, is found to prevail in large manufacturing towns, where people live groſs, and lead ſedentary lives.

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REGIMEN.—As this diſeaſe proceeds, in a great meaſure, from relaxation, the diet ought to be generous and nouriſhing, but, at the ſame time, light and of eaſy digeſtion; as well fermented bread, made of ſound grain, the fleſh and broth of young animals, with now and then a glaſs of generous wine, or good porter. The air ought to be open, dry, and not too cold, and the patient ſhould take as much exerciſe as he can bear. This is of the utmoſt importance. Children who have ſufficient exerciſe are ſeldom troubled with the ſcrophula.

MEDICINE.—The vulgar are remarkably credulous with regard to the cure of the ſcrophula; many of them believing in the virtue of the royal touch, that of the ſeventh ſon, &c. The truth is, where reaſon or medicines fail, ſuperſtition always comes in their place. Hence it is, that in diſeaſes which are the moſt difficult to underſtand, we generally hear of the greateſt number of miraculous cures being performed. Here, however, the deception is eaſily accounted for. The ſcrophula, at a certain period of life, is often cured of itſelf; and, if the patient happens to be touched about this time, the cure is imputed to the touch, and not to Nature, who is really the phyſician. In the ſame way the inſignificant noſtrums of quacks and old women often gain applauſe when they deſerve none.

There is nothing more pernicious than the cuſtom of plying children in the ſcrophula with ſtrong purgative medicines. People imagine it proceeds from humors which muſt be purged off, without conſidering that theſe purgatives increaſe the debility and aggravate the diſeaſe. It has, indeed, been found, that keeping the body gently open for ſome time,

eſpecially with ſea-water, has a good effect; but this ſhould only be given in groſs habits, and in ſuch quantity as to procure one, or at moſt two ſtools every day.

Bathing in the ſalt water has likewiſe a very good effect, eſpecially in the warm ſeaſon. I have often known a courſe of bathing in ſalt water, and drinking it in ſuch quantities as to keep the body gently open, cure a ſcrophula, after many other medicines had been tried in vain. When ſalt-water cannot be obtained, the patient may be bathed in freſh water, and his body kept open by ſmall quantities of ſalt and water, or ſome other mild purgative.

Next to cold bathing, and drinking the ſalt-water, we would recommend the Peruvian bark. The cold bath may be uſed in ſummer, and the bark in winter. To an adult half a drachm of the bark in powder may be given in a glaſs of red wine four or five times a-day. Children and ſuch as cannot take it in ſubſtance, may uſe the decoction made in the following manner:

Boil an ounce of Peruvian bark and a drachm of Winter's bark, both groſsly powdered, in a quart of water to a pint; towards the end half an ounce of ſliced liquorice-root, and a handful of raiſins may be added, which will both render the decoction leſs diſagreeable, and make it take up more of the bark. The liquor muſt be ſtrained, and two, three, or four table-ſpoonfuls, according to the age of the patient, given three times a-day.

The Moffat and Harrowgate waters, eſpecially the latter, are likewiſe very proper medicines in the ſcrophula. They ought not, however, to be drank in large quantities, but ſhould be taken ſo as to keep the body gently open, and muſt be uſed for a conſiderable time.

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The hemlock may ſometimes be uſed with advantage in the ſcrophula. Some lay it down as a general rule, that the ſea-water is moſt proper before there are any ſuppuration or ſymptoms of *tabes*; the Peruvian bark, when there are running ſores and a degree of hectic fever; and the hemlock in old inveterate caſes, approaching to the ſchirrous or cancerous ſtate. Either the extract or the freſh juice of this plant may be uſed. The doſe muſt be ſmall at firſt, and increaſed gradually as far as the ſtomach is able to bear it*.

External applications are of little uſe. Before the tumour breaks, nothing ought to be applied to it unleſs a piece of flannel, or ſomething to keep it warm. After it breaks, the ſore may be dreſſed with ſome digeſtive ointment. What I have always found to anſwer beſt, was the yellow baſilicon mixed with about a ſixth or eighth part of its weight of red precipitate of mercury. The ſore may be dreſſed with this twice a-day; and if it be very fungous, and does not digeſt well, a larger proportion of the precipitate may be added.

Medicines which mitigate this diſeaſe, though they do not cure it, are not to be deſpiſed. If the patient can be kept alive by any means till he arrives at the age of puberty, he has a great chance to get well.

There is no malady which parents are ſo apt to communicate to their offspring as the ſcrophula, for which reaſon people ought to beware of marrying into families affected with this diſeaſe.

* We often find ſcrophula, eſpecially when it firſt appears, attended with a conſiderable degree of fever: Here repeated ſmall bleedings, gentle purging, and low diet, will do moſt good; after this ſmall doſes of corroſive ſublimate and bark, with wort for drink, will be found of the greateſt ſervice.

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For the means of preventing the ſcrophula, we muſt refer the reader to the obſervations on nurſing, at the beginning of the book.

OF THE ITCH.

Though this diſeaſe is commonly communicated by infection, yet it ſeldom prevails where due regard is paid to cleanlineſs, freſh air, and wholeſome diet. It generally appears in form of ſmall watery puſtules, firſt about the wriſts or between the fingers; afterwards it affects the arms, legs, thighs, &c. Theſe puſtules are attended with an intolerable itching, eſpecially when the patient is warm a-bed, or ſits by the fire. Sometimes indeed the ſkin is covered with large blotches or ſcabs, and at other times with a white ſcurf, or ſcaly eruption. This laſt is called the dry itch, and is the moſt difficult to cure.

The itch is ſeldom a dangerous diſeaſe, unleſs when it is rendered ſo by neglect, or improper treatment. If it be ſuffered to continue too long, it may vitiate the whole maſs of humors; and, if it be ſuddenly drove in, without proper evacuations, it may occaſion fevers, inflammations of the viſcera, or other internal diſorders.

The beſt medicine yet known for the itch is ſulphur, which ought to be uſed both externally and internally. The parts moſt affected may be rubbed with an ointment made of the flower of ſulphur, two ounces; crude ſal ammoniac, finely powdered, two drachms; hog's lard, or butter, four onces. If a ſcruple or half a drachm of the eſſence of lemon be added it will entirely take away the diſagreeable ſmell. About the bulk of a nutmeg of this may be rubbed upon the extremities every night at bed time. It is ſeldom neceſſary to rub the whole body; but when it is, it ought not to be done all at once, but by turns, as

it

it is dangerous to ſtop too many pores at the ſame time.

Before the patient begins to uſe the ointment, he ought, if he be of a full habit, to bleed or take a purge or two. It will likewiſe be proper, during the uſe of it, to take every night and morning as much of the flower of brimſtone and cream of tartar, in a litle molaſſes, as will keep the body gently open. He ſhould beware of catching cold, ſhould wear more clothes than uſual, and take every thing juſt warm. It will alſo be proper daily to waſh off the ointment with warm water and a little Caſtile ſoap, ſome hours before anointing afreſh. The ſame clothes, the linen excepted, ought to be worn all the time of uſing the ointment; and ſuch clothes as have been worn while the patient was under the diſeaſe, are not to be uſed again, unleſs they have been fumigated with brimſtone, and thoroughly cleaned, otherwiſe they will communicate the infection anew*.

I never knew brimſtone, when uſed as directed above, fail to cure the itch; and I have reaſon to believe, that, if duly perſiſted in, it never will fail; but if it be only uſed once or twice, and cleanlineſs neglected, it is no wonder if the diſorder returns. The quantity of ointment mentioned above will generally be ſufficient for the cure of one perſon; but, if any ſymptoms of the diſeaſe ſhould appear again, the medicine may be repeated. It is both

* Sir John Pringle obſerves, that though this diſeaſe may ſeem trifling, there is no one in the army that is more troubleſome to cure, as the infection often lurks in clothes, &c. and breaks out a ſecond, or even a third time. The ſame inconveniency occurs in private families, unleſs particular regard is paid to the changing or cleaning of their clothes, which laſt is by no means an eaſy operation.

more

more ſafe and efficacious when perſiſted in for a conſiderable time, than when a large quantity is applied at once. As moſt people diſlike the ſmell of ſulphur, they may uſe in its place the powder of white hellebore root made up into an ointment, in the ſame manner, which will ſeldom fail to cure the itch.

People ought to be extremely cautious leſt they miſtake other eruptions for the itch; as the ſtoppage of theſe may be attended with fatal conſequences. Many of the eruptive diſorders to which children are liable, have a near reſemblance to this diſeaſe; and I have often known infants killed by being rubbed with greaſy ointments that made theſe eruptions ſtrike ſuddenly in, which Nature had thrown out to preſerve the patient's life, or prevent ſome other malady.

Much miſchief is likewiſe done by the uſe of mercury in this diſeaſe. Some perſons are ſo fool-hardy as to waſh the parts affected with a ſtrong ſolution of the corroſive ſublimate. Others uſe the mercurial ointment, without taking the leaſt care either to avoid cold, keep the body open, or obſerve a proper regimen. The conſequences of ſuch conduct may be eaſily gueſſed. I have known even the mercurial girdles produce bad effects, and would adviſe every perſon, as he values his health, to beware how he uſes them. Mercury ought never to be uſed as a medicine without the greateſt care. Ignorant people look upon theſe girdles as a kind of charm, without conſidering that the mercury enters the body.

It is not to be told what miſchief is done by uſing mercurial ointment for curing the itch and killing vermin; yet it is unneceſſary for either: the former may be always more certainly cured by ſulphur, and the

the latter will never be found where due regard is paid to cleanlineſs*.

Thoſe who would avoid the deteſtable diſeaſe ought to beware of infected perſons, to uſe wholeſome food, and to ſtudy univerſal cleanlineſs†.

CHAP. XLI.

Of the Aſthma.

THE aſthma is a diſeaſe of the lungs, which rarely admits of a perfect cure. Perſons in the decline of life are moſt liable to it. It is diſtinguiſhed into the moiſt and dry, or the humoral and nervous. The former is attended with expectoration or ſpitting; but in the latter the patient ſeldom ſpits, unleſs ſometimes a little tough phlegm by the mere force of coughing.

* If *Mercury* is uſed, the unguentum citrinum is the moſt powerful form of it. The moſt inveterate itches are cured by an ointment made by mixing from fifty to one hundred drops of ſpirits of vitriol with an ounce of hog's lard.

† The itch is now, by cleanlineſs, baniſhed from every genteel family in Britain. It ſtill, however, prevails among the poorer ſort of peaſants in Scotland, and among the manufacturers in England. Theſe are not only ſufficient to keep the ſeeds of the diſeaſe alive, but to ſpread the infection among others. It were to be wiſhed that ſome effectual method could be deviſed for extirpating it altogether. Several country clergymen have told me, that by getting ſuch as were infected cured, and ſtrongly recommending an attention to cleanlineſs, they have baniſhed the itch entirely out of their pariſhes. Why might not others do the ſame?

CAUSES.

CAUSES.—The aſthma is ſometimes hereditary. It may likewiſe proceed from a bad formation of the breaſt; the fumes of metals or minerals taken into the lungs; violent exerciſe, eſpecially running; the obſtruction of cuſtomary evacuations, as the menſes, hæmorrhoids, &c. the ſudden retroceſſion of the gout, and ſtriking in of eruptions, as the ſmall-pox, meaſles, &c. violent paſſions of the mind, as ſudden fear or ſurpriſe. In a word, the diſeaſe may proceed from any cauſe that either impedes the circulation of the blood through the lungs, or prevents their being duly expanded by the air.

SYMPTOMS.—An aſthma is known by a quick laborious breathing, which is generally performed with a kind of wheezing noiſe. Sometimes the difficulty of breathing is ſo great, that the patient is obliged to keep in an erect poſture, otherwiſe he is in danger of being ſuffocated. A fit or paroxyſm of the aſthma generally happens after a perſon has been expoſed to cold eaſterly winds, or has been abroad in thick foggy weather, or has got wet, or continued long in a damp place, or has taken food which the ſtomach could not digeſt, as paſtries, toaſted cheeſe, or the like.

The paroxyſm is commonly uſhered in with liſtleſſneſs, want of ſleep, hoarſeneſs, a cough, belching of wind, a ſenſe of heavineſs about the breaſt, and difficulty of breathing. To theſe ſucceed heat, fever, pain of the head, ſickneſs and nauſea, great oppreſſion of the breaſt, palpitation of the heart, a weak, and ſometimes intermitting pulſe, an involuntary flow of tears, bilious vomitings, &c. All the ſymptoms grow worſe towards night; the patient is eaſier when up than in bed, and is very deſirous of cool air.

REGIMEN.——The food ought to be light, and of eaſy digeſtion. Boiled meats are to be preferred

to

to roaſted, and the fleſh of animals come to their full growth, to that of old. All windy food, and whatever is apt to ſwell in the ſtomach, is to be avoided. Light puddings, broths, and ripe fruits baked, boiled, or roaſted, are proper. Strong liquors of all kinds, eſpecially malt-liquors, are hurtful. The patient ſhould eat a very light ſupper, or rather none at all, and ſhould never ſuffer himſelf to be long coſtive. His cloathing ſhould be warm, eſpecially in the winter-ſeaſon. As all diſorders of the breaſt are much relieved by keeping the feet warm, and promoting the perſpiration, a flannel ſhirt or waiſtcoat, and thick ſhoes will be of ſingular ſervice.

But nothing is of ſo great importance in the aſthma as pure and moderately warm air. Aſthmatic people can ſeldom bear either the cloſe heavy air of a large town, or the ſharp, keen atmoſphere of a bleak hilly country; a medium therefore between theſe is to be choſen. The air near a large town is often better than at a diſtance, provided the patient be removed ſo far as not be affected by the ſmoke. Some aſthmatic patients indeed breathe eaſier in town than in the country; but this is ſeldom the caſe, eſpecially in towns where much coal is burnt. Aſthmatic perſons who are obliged to be in town all day, ought at leaſt to ſleep out of it. Even this will often prove of great ſervice. Thoſe who can afford it ought to travel into a warmer climate. Many aſthmatic perſons who cannot live in Britain, enjoy very good health in the ſouth of France, Portugal, Spain, or Italy.

Exerciſe is likewiſe of very great importance in the aſthma, as it promotes the digeſtion, preparation of the blood, &c. The blood of aſthmatic perſons is ſeldom duly prepared, owing to the proper action of the lungs being impeded. For this reaſon ſuch people ought daily to take as much exerciſe, either

on

on foot, horſeback, or in a carriage, as they can bear.

MEDICINE.——Almoſt all that can be done by medicine in this diſeaſe, is to relieve the patient when ſeized with a violent fit. This indeed requires the greateſt expedition, as the diſeaſe ſometimes proves ſuddenly fatal. In the paroxyſm or fit, the body is generally bound; a purging clyſter, with a ſolution of aſafœtida, ought therefore to be adminiſtered; and, if there be occaſion, it may be repeated two or three times. The patient's feet and legs ought to be immerſed in warm water, and afterwards rubbed with a warm hand, or dry cloth. Bleeding, unleſs weakneſs or old age, ſhould forbid it, is highly proper. If there be a violent ſpaſm about the breaſt or ſtomach, warm fomentations, or bladders filled with warm milk and water, may be applied to the part affected, and warm cataplaſms to the ſoles of the feet. The patient muſt drink freely of diluting liquors, and may take a tea-ſpoonful of the tincture of caſtor, in a cup of valerian-tea, twice or thrice a-day. Sometimes a vomit has a very good effect, and ſnatches the patient, as it were, from the jaws of death. This however will be more ſafe after other evacuations have been premiſed. A very ſtrong infuſion of roaſted coffee is ſaid to give eaſe in an aſthmatic paroxyſm.

In the moiſt aſthma, ſuch things as promote expectoration or ſpitting ought to be uſed; as the ſyrup of ſquills, gum ammoniac, and ſuch like. A common ſpoonful of the ſyrup, or oxymel of ſquills, mixed with an equal quantity of cinnamon-water, may be taken three or four times through the day, and four or five pills made of equal parts of aſafœtida and gum-ammoniac, at bed-time*.

* After copious evacuations, large doſes of æther have been found very efficacious in removing a fit of the aſthma. I have

For the convulſive or nervous aſthma, antiſpaſmodics and bracers are the moſt proper medicines. The patient may take a tea-ſpoonful of the paregoric elixir twice a-day. The Peruvian bark is ſometimes found to be of uſe in this caſe. It may be taken in ſubſtance, or infuſed in wine. In ſhort, every thing that braces the nerves, or takes off ſpaſm, may be of uſe in a nervous aſthma. It is often relieved by the uſe of aſſes milk; I have likewiſe known cows milk, drawn warm in the morning, have a very good effect in this caſe.

In every ſpecies of aſthma, ſetons and iſſues have a good effect; they may either be ſet in the back or ſide, and ſhould never be allowed to dry up. We ſhall here, once for all, obſerve, that not only in the aſthma, but in moſt chronic diſeaſes, iſſues are extremely proper. They are both a ſafe and efficacious remedy; and though they do not always cure the diſeaſe, yet they will often prolong the patient's life. Bliſters to the breaſt are often highly neceſſary, and ſometimes a very large warm plaſter, conſtantly worn on the breaſt, has been found of eſſential ſervice.

likewiſe known the following mixture produce very happy effects: To four or five ounces of the ſolution of gum-ammoniac add two ounces of ſimple cinnamon-water, and half an ounce of paregoric elixir. Of this two table-ſpoonfuls may be taken every three hours.

CHAP. XLII.

Of the Apoplexy.

THE apoplexy is a ſudden loſs of ſenſe and motion, wherein the patient is to all appearance dead; the heart and lungs, however, ſtill continue to move. Though this diſeaſe proves often fatal, yet it may ſometimes be removed by proper care. It chiefly attacks ſedentary perſons of a groſs habit, who uſe a rich and plentiful diet, and indulge in ſtrong liquors. People in the decline of life are moſt ſubject to the apoplexy. It prevails moſt in winter, eſpecially in rainy ſeaſons, and very low ſtates of the barometer.

CAUSES.—The immediate cauſe of an apoplexy is a compreſſion of the brain, occaſioned by an exceſs of blood, or a collection of watery humors. The former is called a *ſanguine*, and the latter a *ſerous apoplexy*. It may be occaſioned by any thing that increaſes the circulation towards the brain, or prevents the return of the blood from the head; as intenſe ſtudy; violent paſſions*; viewing objects for a long time obliquely; or much ſtooping; wearing any thing too tight about the neck; a rich and luxurious diet; ſuppreſſion of urine; ſuffering the body to cool

* I knew a woman who in a violent fit of anger was ſeized with a ſanguine apoplexy. She at firſt complained of extreme pain, *as if daggers had been thruſt through her head*, as ſhe expreſſed it. Afterwards ſhe became comatoſe, her pulſe ſunk very low, and it was exceeding ſlow. By bleeding, bliſtering, and other evacuations, ſhe was kept alive for about a fortnight. When her head was opened, a large quantity of extravaſated blood was found in the left ventricle of the brain.

ſuddenly

ſuddenly after having been greatly heated; continuing too long in a warm or a cold bath; the exceſſive uſe of ſpiceries, or high ſeaſoned-food; exceſs of venery; the ſudden ſtriking in of any eruption; ſuffering iſſues, ſetons, &c. ſuddenly to dry up, or the ſtoppage of any cuſtomary evacuation; a mercurial ſalivation puſhed too far, or ſuddenly checked by cold; wounds or bruiſes on the head; long expoſure to exceſſive cold; poiſonous exhalations, &c.

SYMPTOMS, and method of cure. The uſual forerunners of an apoplexy are giddineſs, pain and ſwimming of the head; loſs of memory; drowſineſs; noiſe in the ears; the night mare; a ſpontaneous flux of tears, and laborious reſpiration. When perſons of an apoplectic make obſerve theſe ſymptoms, they have reaſon to fear the approach of a fit, and ſhould endeavour to prevent it by bleeding, a ſlender diet, and opening medicines.

In the ſanguine apoplexy, if the patient does not die ſuddenly, the countenance appears florid, the face is ſwelled or puffed up, and the blood-veſſels, eſpecially about the neck and temples, are turgid; the pulſe beats ſtrong; the eyes are prominent and fixed, and the breathing is difficult, and performed with a ſnorting noiſe. The excrements and urine are often voided ſpontaneouſly, and the patient is ſometimes ſeized with vomiting.

In this ſpecies of apoplexy every method muſt be taken to leſſen the force of the circulation towards the head. The patient ſhould be kept perfectly eaſy and cool. His head ſhould be raiſed pretty high, and his feet ſuffered to hang down. His clothes ought to be looſened, eſpecially about the neck, and freſh air admitted into his chamber. His garters ſhould be tied pretty tight, by which means the motion of the blood from the lower extremities will be retarded. As ſoon as the patient is placed in a proper

poſture, he ſhould be bled freely in the neck or arm, and, if there be occaſion, the operation may be repeated in two or three hours. A laxative clyſter, with plenty of ſweet oil, or freſh butter, and a ſpoonful or two of common ſalt in it, may be adminiſtered every two hours; and bliſtering-plaſters applied between the ſhoulders, and to the calves of the legs.

As ſoon as the ſymptoms are a little abated, and the patient is able to ſwallow, he ought to drink freely of ſome diluting opening liquor, as a decoction of tamarinds and liquorice, cream of tartar-whey, or common whey with cream of tartar diſſolved in it. Or he may take any cooling purge, as Glauber's ſalt, manna diſſolved in an infuſion of ſenna, or the like. All ſpirits, and other ſtrong liquors are to be avoided. Even volatile ſalts held to the noſe do miſchief. Vomits, for the ſame reaſon, ought not to be given, nor any thing that may increaſe the motion of the blood towards the head.

In the ſerous apoplexy, the ſymptoms are nearly the ſame, only the pulſe is not ſo ſtrong, the countenance is leſs florid, and the breathing leſs difficult. Bleeding is not ſo neceſſary here as in the former caſe. It may, however, generally be performed once with ſafety and advantage, but ſhould not be repeated. The patient ſhould be placed in the ſame poſture as directed above, and ſhould have bliſtering-plaſters applied, and receive opening clyſters in the ſame manner. Purges here are likewiſe neceſſary, and the patient may drink ſtrong balm-tea. If he be inclined to ſweat, it ought to be promoted by drinking ſmall wine-whey, or an infuſion of carduus benedictus. A plentiful ſweat kept up for a conſiderable time has often carried off a ſerous apoplexy.

When apoplectic ſymptoms proceed from opium, or other narcotic ſubſtances taken into the ſtomach, vomits are neceſſary. The patient is generally relieved

lieved as ſoon as he has diſcharged the poiſon in this way.

Perſons of an apoplectic make, or thoſe who have been attacked by it, ought to uſe a very ſpare and ſlender diet, avoiding all ſtrong liquors, ſpiceries, and high ſeaſoned food. They ought likewiſe to guard againſt all violent paſſions, and to avoid the extremes of heat and cold. The head ſhould be ſhaved, and daily waſhed with cold water. The feet ought to be kept warm, and never ſuffered to continue long wet. The body muſt be kept open either by food or medicine, and a little blood may be let every ſpring and fall. Exerciſe ſhould by no means be neglected; but it ought to be taken in moderation. Nothing has a more happy effect, in preventing an apoplexy than perpetual iſſues or ſetons; great care, however, muſt be taken not to ſuffer them to dry up, without opening others in their ſtead. Apoplectic perſons ought never to go to reſt with a full ſtomach, or to lie with their heads low, or wear any thing tight about their necks.

CHAP. XLIII.

Of Coſtiveneſs, and other Affections of the Stomach and Bowels.

WE do not mean here to treat of thoſe aſtrictions of the bowels which are the ſymptoms of diſeaſes, as of the colic, the iliac paſſion, &c. but only to take notice of that infrequency of ſtools which ſometimes happens, and which, in ſome particular conſtitutions may occaſion diſeaſes.

Coſtiveneſs may proceed from drinking rough red wines, or other aſtringent liquors; too much exer-

ciſe, eſpecially on horſeback. It may likewiſe proceed from a long uſe of cold inſipid food, which does not ſufficiently ſtimulate the inteſtines. Sometimes it is owing to the bile not deſcending to the inteſtines, as in the jaundice; and at other times it proceeds from diſeaſes of the inteſtines themſelves, as a palſy, ſpaſms, torpor, tumors, a cold dry ſtate of the inteſtines, &c.

Exceſſive coſtiveneſs is apt to occaſion pains of the head, vomiting, colics, and other complaints of the bowels. It is peculiarly hurtful to hypochondriac and hyſteric perſons, as it generates wind and other grievous ſymptoms. Some people, however, can bear coſtiveneſs to a great degree. I know perſons who enjoy pretty good health, yet do not go to ſtool above once a-week, and others not above once a-fortnight. Indeed I have heard of ſome who do not go above once a-month.

Perſons who are generally coſtive ſhould live upon a moiſtening and laxative diet, as roaſted or boiled, apples, pears, ſtewed prunes, raiſins, gruels with currants, butter, honey, ſugar, and ſuch like. Broths with ſpinage, leeks, and other ſoft pot-herbs, are likewiſe proper. Rye-bread, or that which is made of a mixture of wheat and rye together, ought to be eaten. No perſon, troubled with coſtiveneſs, ſhould eat white bread alone, eſpecially that which is made of fine flour. The beſt bread for keeping the body ſoluble is what, in ſome parts of England, they call *meſlin*. It is made of a mixture of wheat and rye, and is very agreeable to thoſe who are accuſtomed to it.

Coſtiveneſs is increaſed by keeping the body too warm, and by every thing that promotes the perſpiration; as wearing flannel, laying too long a-bed, &c. Intenſe thought, and a ſedentary life, are likewiſe hurtful. All the ſecretions and excretions are promoted by moderate exerciſe without doors, and by a lively, cheerful, and ſprightly temper of mind.

The drink ſhould be of an opening quality. All ardent ſpirits, auſtere and aſtringent wines, as port, claret, &c. ought to be avoided. Malt-liquor that is fine, and of a moderate ſtrength, is very proper. Butter-milk, whey, and other watery liquors, are likewiſe proper, and may be drank in turns, as the patient's inclination directs.

Thoſe who are troubled with coſtiveneſs, ought, if poſſible, to remedy it by diet, as the conſtant uſe of medicines for that purpoſe, is attended with many inconveniences, and often with bad conſequences*. I never knew any one get into a habit of taking medicine for keeping the body open, who could leave it off. In time, the cuſtom becomes neceſſary, and generally ends in a total relaxation of the bowels, indigeſtion, loſs of appetite, waſting of the ſtrength, and death.

When the body cannot be kept open without medicine, we would recommend gentle doſes of rhu-

* The learned Dr Arbuthnot adviſes thoſe who are troubled with coſtiveneſs to uſe animal oils, as freſh butter, cream, marrow, fat broths, &c. He likewiſe recommends the expreſſed oils of mild vegetables, as olives, almonds, piſtaches, and the fruits themſelves; all oily and mild fruits, as figs; decoctions of mealy vegetables; theſe lubricate the inteſtines; ſome ſaponaceous ſubſtances which ſtimulate gently, as honey, hydromel, or boiled honey and water, unrefined ſugar, &c.

The Doctor obſerves, that ſuch lenitive ſubſtances are proper for perſons of dry atrabilarian conſtitutions, who are ſubject to aſtriction of the belly, and the piles, and will operate when ſtronger medicinal ſubſtances are ſometimes ineffectual; but that ſuch lenitive diet hurts thoſe whoſe bowels are weak and lax. He likewiſe obſerves, that all watery ſubſtances are lenitive, and that even common water, whey, ſour milk, and butter-milk, have that effect;—That new milk, eſpecially aſſes milk, ſtimulates ſtill more when it ſours on the ſtomach; and that whey turned ſour will purge ſtrongly;—That moſt garden fruits are likewiſe laxative; and that ſome of them, as grapes, will throw ſuch as take them immoderately into a cholera morbus, or incurable diarrhœa.

barb to be taken twice or thrice a-week. A very good practice in these cases is to chew a piece of the root of rhubarb, about the size of an hazel-nut every morning. This is not near so injurious to the stomach as aloes, jalap, or the other drastic purgatives so much in use. Infusions of senna and manna may likewise be taken, or half an ounce of soluble tartar dissolved in water-gruel. About the size of a nutmeg of lenitive electuary taken twice or thrice a-day generally answers the purpose very well. Perhaps there is no purgative so safe for those who are troubled with habitual costiveness as castor oil. A table-spoonful may be taken for a dose, and the quantity need not be increased. Eight or twelve grains of the extract of the butter nut, is an excellent cathartic in these cases. A large lump of brown sugar eaten at bed-time, will generally prove laxative.

WANT OF APPETITE.

This may proceed from a foul stomach; indigestion; the want of free air and exercise; grief; fear; anxiety; or any of the depressing passions; excessive heat; the use of strong broths, fat meats, or any thing that palls the appetite, or is hard of digestion, the immoderate use of strong liquors, tea, tobacco, opium, &c.

The patient ought, if possible, to make choice of an open dry air; to take exercise daily on horseback or in a carriage; to rise betimes; and to avoid all intense thought. He should take a diet of easy digestion; and should avoid excessive heat and great fatigue.

If want of appetite proceeds from errors in diet, or any other part of the patient's regimen, it ought to be changed. If nausea and retchings shew that the stomach is loaded with crudities, a vomit will be of service. After this a gentle purge or two of rhubarb,

barb, may be taken. The patient ought next to uſe ſome of the ſtomachic bitters infuſed in wine. Though gentle evacuations be neceſſary, yet ſtrong purges and vomits are to be avoided, as they weaken the ſtomach and hurt digeſtion.

Elixir of vitriol is an excellent medicine in moſt caſes of indigeſtion, weakneſs of the ſtomach, or want of appetite. From twenty to thirty drops of it may be taken twice or thrice a-day in a glaſs of wine or water. It may likewiſe be mixed with the tincture of the bark, one drachm of the former to an ounce of the latter, and two tea-ſpoonfuls of it taken in wine or water as above.

The chalybeate waters, if drank in moderation, are generally of conſiderable ſervice in this caſe. The ſalt water has likewiſe good effects; but it muſt not be uſed too freely. The waters of Harrowgate, Scarborough, Moffat, and moſt other Spas in Britain, may be uſed with advantage. We would adviſe all who are afflicted with indigeſtion and want of appetite, to repair to thoſe places of public rendezvous. The very change of air, and the cheerful company, will be of ſervice; not to mention the exerciſe, amuſements, &c.

OF THE HEART-BURN.

What is commonly called the *heart-burn*, is not a diſeaſe of that organ, but an uneaſy ſenſation of heat or acrimony about the pit of the ſtomach, which is ſometimes attended with anxiety, nauſea, and vomiting.

It may proceed from debility of the ſtomach, indigeſtion, bile, the abounding of an acid in the ſtomach, &c. Perſons who are liable to this complaint ought to avoid ſtale liquors, acids, windy or greaſy aliments,

ments, and ſhould never uſe violent exerciſe ſoon after a plentiful meal. I know many perſons who never fail to have the heart-burn if they ride ſoon after dinner, provided they have drank ale, wine, or any fermented liquor.

When the heart-burn proceeds from debility of the ſtomach, or indigeſtion, the patient ought to take a doſe or two of rhubarb; afterwards he may uſe infuſions of the Peruvian bark, or any other of the ſtomachic bitters. Exerciſe in the open air will likewiſe be of uſe, and every thing that promotes digeſtion.

When bilious humors occaſion the heart-burn, a tea-ſpoonful of the ſweet ſpirit of nitre in a glaſs of water, or a cup of tea, will generally give eaſe. In this caſe the elixir of vitriol or columbo-root are of peculiar ſervice. If it proceeds from the uſe of greaſy aliments, a tea-cupful of mint water may be taken.

If acidity or ſourneſs of the ſtomach occaſions the heart-burn, abſorbents are the proper medicines. In this caſe an ounce of powdered chalk, and a quarter of an ounce of gum-arabic, may be mixed in a quart of water, and a tea-cupful of it taken as often as is neceſſary. But the ſafeſt and beſt abſorbent is *magneſia alba*. This not only acts as an abſorbent, but likewiſe as a purgative; whereas chalk, and other abſorbents of that kind, are apt to lie in the inteſtines, and occaſion obſtructions. This powder is not diſagreeable, and may be taken in water or a cup of tea, or a glaſs of mint-water. A large tea-ſpoonful is the uſual doſe; but it may be taken in a much greater quantity when there is occaſion. Theſe things are now generally made up into lozenges for the conveniency of being carried in the pocket, and taken at pleaſure.

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If wind be the cauſe of this complaint, the moſt proper medicines are thoſe called carminatives; as aniſeeds, juniper-berries, ginger, canella alba, cardamom ſeeds, &c. Theſe may either be chewed, or infuſed in wine. One of the ſafeſt medicines of this kind is the tincture made by infuſing an ounce of rhubarb, and a quarter of an ounce of the leſſer cardamom ſeeds, in a pint of brandy. After this has digeſted for ſix or eight days, it ought to be ſtrained. A table-ſpoonful of it may be taken occaſionally for a doſe.

I have frequently known the heart-burn cured, particularly in pregnant women, by chewing green-tea. Two table-ſpoonfuls of what is called the milk of gum-ammoniac, taken once or twice a-day, will ſometimes cure the heart-burn. The ſame effect is produced by drinking cow's milk. The heart-burn is a ſymptom of indigeſtion, and of courſe can be cured only by thoſe means which promote digeſtion; the chief of theſe, as have been already mentioned, are air, exerciſe, and proper diet.

CHAP. XLIV.

Of Nervous Diſeaſes.

OF all diſeaſes incident to mankind, thoſe of the nervous kind are the moſt complicated and difficult to cure. A volume would not be ſufficient to point out their various appearances. They imitate almoſt every diſeaſe; and are ſeldom alike in two different perſons, or even in the ſame perſon at different times. Proteus-like, they are continually changing

changing ſhape; and upon every freſh attack, the patient thinks he feels ſymptoms which he never experienced before. Nor do they only affect the body; the mind likewiſe ſuffers, and is often thereby rendered extremely weak and peeviſh. The low ſpirits, timorouſneſs, melancholy, and fickleneſs of temper, which generally attend nervous diſorders, induce many to believe that they are entirely diſeaſes of the mind; but this change of temper is rather a conſequence, than the cauſe of nervous diſeaſes.

CAUSES.——Every thing that tends to relax or weaken the body, diſpoſes it to nervous diſeaſes, as indolence, exceſſive venery, drinking too much tea, or other weak watery liquors warm, too frequent bleeding, purging, vomiting, &c. Whatever hurts the digeſtion, or prevents the proper aſſimilation of the food, has likewiſe this effect; as long faſting, exceſs in eating or drinking, the uſe of windy, crude, or unwholeſome aliments, an unfavourable poſture of the body, &c.

Nervous diſorders often proceed from intenſe application to ſtudy. Indeed few ſtudious perſons are entirely free from them. Nor is this at all to be wondered at; intenſe thinking not only preys upon the ſpirits but prevents the perſon from taking proper exerciſe, by which means the digeſtion is impaired, the nouriſhment prevented, the ſolids relaxed, and the whole maſs of humors vitiated. Grief and diſappointment likewiſe produce the ſame effects. I have known more nervous patients, who dated the commencement of their diſorders from the loſs of a huſband, a favourite child, or from ſome diſappointment in life, than from any other cauſe. In a word, whatever weakens the body, or depreſſes the ſpirits, may occaſion nervous diſorders, as unwholeſome air, want of ſleep, great fatigue, diſagreeable apprehenſions, anxiety, vexation, &c.

SYMPTOMS.

SYMPTOMS.—We ſhall only mention ſome of the moſt general ſymptoms of theſe diſorders, as it would be both an uſeleſs and an endleſs talk to enumerate the whole. They generally begin with inflations or diſtentions of the ſtomach and inteſtines; the appetite and digeſtion are uſually bad; yet ſometimes there is an uncommon craving for food and a quick digeſtion. The food often turns ſour on the ſtomach; and the patient is troubled with vomiting of clear water, or tough phlegm. Excruciating pains are often felt about the navel, attended with a rumbling or murmuring noiſe in the bowels. The body is ſometimes looſe, but more commonly bound, which occaſions a retention of wind and great uneaſineſs.

The urine is ſometimes in ſmall quantity, at other times very copious and quite clear. There is a great ſtraitneſs of the breaſt, with difficulty of breathing; violent palpitations of the heart; ſudden flushings of heat in various parts of the body; at other times a ſenſe of cold, as if water were poured on them; flying pains in the arms and limbs; pains in the back and belly, reſembling thoſe occaſioned by gravel; the pulſe very variable, ſometimes uncommonly ſlow, and at other times very quick; yawning, the hiccup, frequent ſighing, and a ſenſe of ſuffocation, as if from a ball or lump in the throat; alternate fits of crying and convulſive laughing; the ſleep is unſound and ſeldom refreſhing; and the patient is often troubled with the night-mare.

As the diſeaſe increaſes, the patient is moleſted with head-aches, cramps, and fixed pains in various parts of the body; cold feet; the eyes are clouded, and often affected with pain and dryneſs; there is a noiſe in the ears, and often a dullneſs of hearing; in ſhort, the whole animal functions are impaired. The mind is diſturbed on the moſt trivial occaſions, and

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is hurried into the moſt perverſe commotions, inquietudes, terror, ſadneſs, anger, diffidence, &c. The patient is apt to entertain wild imaginations and extravagant fancies; the memory becomes weak, and the judgment fails.

Nothing is more characteriſtic of this diſeaſe than a conſtant dread of death. This renders thoſe unhappy perſons who labour under it peeviſh, fickle, impatient, and apt to run from one phyſician to another; which is one reaſon why they ſeldom reap any benefit from medicine, as they have not ſufficient reſolution to perſiſt in any one courſe till it has time to produce its proper effects. They are likewiſe apt to imagine that they labour under diſeaſes from which they are quite free; and are angry if any one attempts to ſet them right, or to laugh them out of their ridiculous notions.

REGIMEN.—Perſons afflicted with nervous diſeaſes ought never to faſt long. Their food ſhould be ſolid and nouriſhing, but of eaſy digeſtion. Fat meats and heavy ſauces are hurtful. All exceſs ſhould be carefully avoided. They ought never to eat more at a time than they can eaſily digeſt; but if they feel themſelves weak and faint between meals, they ought to eat a bit of bread and drink a glaſs of wine. Heavy ſuppers are to be avoided. Though wine in exceſs enfeebles the body, and impairs the faculties of the mind, yet taken in moderation it ſtrengthens the ſtomach, and promotes digeſtion. Wine and water is a very proper drink at meals; but if wine ſours on the ſtomach, or the patient is much troubled with wind, the ſtronger bodied wines as Madeira and Sherry mixed with water, or porter, will anſwer better. Every thing that is windy or hard of digeſtion muſt be avoided. All weak and warm liquors are hurtful, as tea, coffee, punch, &c. People may find a temporary relief in the uſe of theſe, but they always increaſe the malady, as they weaken

the ſtomach and hurt digeſtion. Above all things, drams ought to be avoided. Whatever immediate eaſe the patient may feel from the uſe of ardent ſpirits, they are ſure to aggravate the malady, and prove certain poiſons at laſt. Theſe cautions are the more neceſſary, as moſt nervous people are peculiarly fond of tea and ardent ſpirits; to the uſe of which many of them fall victims.

Exerciſe, in nervous diſorders, is ſuperior to all medicines. Riding on horſeback is generally eſteemed the beſt, as it gives motion to the whole body, without fatiguing it. I have known ſome patients, however, with whom walking agreed better, and others who were moſt benefited by riding in a carriage. Every one ought to uſe that kind of exerciſe which he finds moſt beneficial. Long ſea-voyages have an excellent effect; and to thoſe who have ſufficient reſolution, we would by all means recommend this courſe. Even change of place, and the ſight of new objects, by diverting the mind, have a great tendency to remove theſe complaints. For this reaſon a long journey, or a voyage, is of much more advantage than riding ſhort journeys near home.

A cool and dry air is proper, as it braces, and invigorates the whole body. Few things tend more to relax and enervate than hot air, eſpecially that which is rendered ſo by great fires, or ſtoves in ſmall apartments. But when the ſtomach or bowels are weak, the body ought to be well guarded againſt cold, eſpecially in winter, by wearing a flannel ſhirt. The ſhoes ſhould be ſuch as will keep the feet warm and dry. This will keep up an equal perſpiration, and defend the alimentary canal from many impreſſions to which it would otherwiſe be ſubject, upon every ſudden change from warm to cold weather. Rubbing the body frequently with a fleſh-bruſh, or

a coarſe

a coarſe linen cloth, is likewiſe beneficial, as it promotes the circulation, perſpiration, &c. Perſons who have weak nerves ought to riſe early, and take exerciſe before breakfaſt, as lying too long in bed cannot fail to relax the ſolids. They ought likewiſe to be diverted, and to be kept as eaſy and cheerful as poſſible. There is not any thing which hurts the nervous ſyſtem, or weakens the digeſtive powers, more than fear, grief, or anxiety.

MEDICINES.—Though nervous diſeaſes are too ſeldom radically cured, yet their ſymptoms may ſometimes be alleviated, and the patient's life rendered, at leaſt more comfortable, by proper medicines.

When the patient is coſtive, he ought to take a little rhubarb, or ſome other mild purgative, and ſhould never ſuffer his body to be long bound. All ſtrong and violent purgatives are, however, to be avoided. I have generally ſeen an infuſion of ſenna and rhubarb anſwer very well. This may be made of any ſtrength, and taken in ſuch quantity as the patient finds neceſſary. When digeſtion is bad, or the ſtomach relaxed and weak, the Peruvian bark, and other bitters, may be uſed with advantage. Centaury or gentian tea anſwer very well; or an ounce of powdered columbo root, and as much ſteel filings, may be infuſed in a quart of Madeira or Sherry wine, and a wine-glaſs full of it taken two or three times a-day. Many perſons have received great advantage from taking two or three times a-day, a wine glaſs full of an infuſion of four table ſpoons full of the juice of green ſage in a quart of port wine.

Few things tend more to ſtrengthen the nervous ſyſtem than cold bathing. This practice, if duly perſiſted in, will produce very extraordinary effects; but when the liver or other *viſcera* are obſtructed, or otherwiſe unſound, the cold bath is improper. It is therefore to be uſed with very great caution.

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The moſt proper ſeaſons for it are ſummer and autumn. It will be ſufficient, eſpecially for perſons of a ſpare habit, to go into the cold bath three or four times a-week. If the patient be weakened by it, or feels chilly for a long time after coming out, it is improper.

In patients afflicted with wind, I have always obſerved the greateſt benefit from the elixir of vitriol. It may be taken in the quantity of fifteen, twenty, or thirty drops, twice or thrice a-day in a glaſs of water. This both expels wind, ſtrengthens the ſtomach, and promotes digeſtion. Opiates have been recommended in theſe maladies; but as they only palliate the ſymptoms, and generally afterwards increaſe the diſeaſe, we would adviſe people to be extremely ſparing in the uſe of them, leſt habit render them at laſt abſolutely neceſſary. Much good has been experienced from pills of myrrh and aſafœtida, made into a maſs with Caſtile ſoap, and taking two or three of a moderate ſize three or four times a-day.

It would be an eaſy matter to enumerate many medicines which have been extolled for relieving nervous diſorders; but, whoever wiſhes for a thorough cure, muſt expect it from regimen alone; we ſhall therefore omit mentioning more medicines, and again recommend the ſtricteſt attention to DIET, AIR, EXERCISE, and AMUSEMENTS.

OF MELANCHOLY.

Melancholy is that ſtate of alienation or weakneſs of mind which renders people incapable of enjoying the pleaſures, or performing the duties of life. It is a degree of inſanity, and often terminates in abſolute madneſs.

CAUSES.—It may proceed from an hereditary diſpoſition; intenſe thinking, eſpecially where the mind is long occupied about one object; violent paſſions or affections of the mind, as love, fear, joy, grief, over-weening pride, and ſuch like. It may alſo be occaſioned by exceſſive venery; narcotic or ſtupefactive poiſons; a ſedentary life; ſolitude; the ſuppreſſion of cuſtomary evacuations; acute fevers, or other diſeaſes. Violent anger will ſometimes change melancholy into madneſs; and exceſſive cold, eſpecially of the lower extremities, will produce all the ſymptoms of madneſs. It may likewiſe proceed from the uſe of aliment that is hard of digeſtion, or which cannot be eaſily aſſimilated; from a callous ſtate of the integuments of the brain, or a dryneſs of the brain itſelf. To all which we may add gloomy or miſtaken notions of religion.

SYMPTOMS.—When perſons begin to be melancholy, they are timorous; watchful; fond of ſolitude; fretful; fickle; captious and inquiſitive; ſolicitous about trifles; ſometimes niggardly, and at other times prodigal. The body is generally bound; the urine thin, and in ſmall quantity; the ſtomach and bowels inflated with wind; the complexion pale; the pulſe ſlow and weak. The functions of the mind are alſo greatly perverted, in ſo much that the patient often imagines himſelf dead, or changed into ſome other animal. Some have imagined their bodies were made of glaſs, or other brittle ſubſtances, and were afraid to move, leſt they ſhould be broken to pieces. The unhappy patient, in this caſe, unleſs carefully watched, is apt to put an end to his own miſerable life.

When the diſeaſe is owing to an obſtruction of cuſtomary evacuations, or to any bodily diſorder, it is eaſier cured than when it proceeds from affections of the mind, or an hereditary taint. A diſcharge

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of blood from the nose, looseness, scabby eruptions, the bleeding piles, or the *menses*, sometimes carry off this disease.

REGIMEN.—The diet should consist chiefly of vegetables of a cooling and opening quality, with a due proportion of the lightest animal food. Salted or smoke-dried fish or flesh, ought to be avoided. All kinds of fruits that are wholesome may be eaten with advantage. Boerhaave gives an instance of a patient who recovered by a long use of whey, water, and garden-fruit.

Strong liquors of every kind ought to be avoided as poison. The most proper drink is water, whey, or small beer. Tea and coffee are improper. If honey agrees with the patient, it may be eaten freely, or his drink may be sweetened with it. Infusions of balm-leaves, penny-royal, the roots of wild valerian, or the flowers of the lime-tree, may be drank freely, either by themselves, or sweetened with honey, as the patient shall chuse.

The patient ought to take as much exercise in the open air as he can bear. This is a very important remedy. It is, indeed, more so than any other that has ever been thought of. It helps to remove obstructions, promote the perspiration, and all other secretions. Every kind of madness is attended with a diminished perspiration; all means ought therefore to be used to promote that necessary and salutary discharge. Nothing can have a more direct tendency to increase the disease than confining the patient to a close apartment. Were he forced to ride or walk a certain number of miles every day, it would tend greatly to alleviate his disorder; but it would have still a better effect, if he were obliged to labour a piece of ground. By digging, hoeing, planting, sowing, &c. both the body and mind would be exercised. A long journey, or a voyage, especially towards a

warmer climate, with agreeable companions, has often very happy effects. A plan of this kind, with a ſtrict attention to diet, is a much more rational method of cure, than confining the patient within doors, and plying him with medicines.

MEDICINE.—In the cure of this diſeaſe, particular attention muſt be paid to the mind. When the patient is in a low ſtate, his mind ought to be ſoothed and diverted with variety of amuſements, as entertaining ſtories, paſtimes, muſic, &c. This ſeems to have been the method of curing melancholy among the Jews, as we learn from the ſtory of king Saul; and, indeed, it is a very rational one. Nothing can remove diſeaſes of the mind ſo effectually as applications to the mind itſelf, the moſt efficacious of which is muſic. The patient's company ought, likewiſe, to conſiſt of ſuch perſons as are agreeable to him. People in this ſtate are apt to conceive unaccountable averſions againſt particular perſons; and the very ſight of ſuch perſons is ſufficient to diſtract their minds, and throw them into the utmoſt perturbation.

When the patient's ſtrength is high, or the ſtate of the pulſe admits of it, evacuations are neceſſary. In this caſe, he muſt be bled, and have his body kept open by purging medicines, as manna, rhubarb, cream of tartar, or the ſoluble tartar. I have ſeen the laſt have very happy effects. It may be taken in the doſe of half an ounce, diſſolved in water-gruel, every day, for ſundry weeks, or even for months, if neceſſary. More or leſs may be given according as it operates. Vomits have likewiſe a good effect; but they muſt be pretty ſtrong, otherwiſe they will not operate.

Whatever increaſes the evacuation of urine or promotes perſpiration, has a tendency to remove this diſeaſe. Both theſe ſecretions may be promoted by the uſe of nitre and vinegar. Half a drachm of purified nitre may be given three or four times a-day,

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in any manner that is moſt agreeable to the patient; and an ounce and a half of diſtilled vinegar may be daily mixed with his drink. Dr Locker ſeems to think vinegar the beſt medicine that can be given in this diſeaſe.

Camphire and muſk have likewiſe been uſed in this caſe with advantage. Fifteen or twenty grains of camphire may be rubbed in a mortar with half a drachm of nitre, and taken twice a-day, or oftener, if the ſtomach will bear it. If it will not ſit upon the ſtomach in this form, it may be made into pills with gum aſafœtida and Ruſſian caſtor, and taken in the quantity above directed. If muſk is to be adminiſtered, a ſcruple or twenty-five grains of it may be made into a bolus with a little honey or common ſyrup, and taken twice or thrice a-day. We do not mean, that all theſe medicines ſhould be adminiſtered at once; but which ever of them is given, muſt be duly perſiſted in, and where one fails another may be tried.

As it is very difficult to induce patients in this diſeaſe to take medicines, we ſhall mention a few outward applications, which ſometimes do good; the principal of theſe are iſſues, ſetons, bliſters, and warm-bathing. Iſſues may be made in any part of the body, but they generally have the beſt effect near the ſpine. The diſcharge from theſe may be greatly promoted by dreſſing them with the mild bliſtering ointment, and keeping what are commonly called the orrice peaſe in them. The moſt proper place for a ſeton is between the ſhoulder-blades; and it ought to be placed upwards and downwards, or in the direction of the ſpine. Bliſters to the ankles have been found to be peculiarly ſerviceable in this diſeaſe*.

* There are two caſes of melancholy in which the ſymptoms are very diſtreſſing, and in which, however, we may promiſe our patients a recovery, from time, exerciſe, and change

OF THE PALSY.

The palſy is a loſs or diminution of ſenſe or motion, or of both, in one or more parts of the body. Of all the affections called nervous, this is the moſt ſuddenly fatal. It is more or leſs dangerous according to to the importance of the part affected. A palſy of the heart, lungs, or any part neceſſary to life, is generally mortal. When it affects the ſtomach, the inteſtines, or the bladder, it is highly dangerous. If the face be affected, the caſe is bad, as it ſhews that the diſeaſe proceeds from the brain. When the part affected feels cold, is inſenſible, or waſtes away, or when the judgment or memory begin to fail, there is leaſt hope of cure.

CAUSES.—The immediate cauſe of the palſy is, any thing that prevents the regular exertion of the nervous power, upon any particular muſcle or part of the body. The occaſional and prediſpoſing cauſes are various, as drunkeneſs; wounds of the brain, or ſpinal marrow; preſſure upon the brain or nerves; very cold or damp air; the ſuppreſſion of cuſtomary evacuations; ſudden fear; want of exerciſe; or whatever greatly relaxes the ſyſtem, as drinking much tea*, or coffee, &c. The palſy may likewiſe proceed

of air and objects. I mean thoſe caſes which occur after fevers, and to women after lying in. In theſe, it is the duty of the phyſician conſtantly to endeavour to inſpire his patients with hope, as there are few or no caſes of the kind, which do not terminate favourably.

* Many people imagine, that tea has no tendency to hurt the nerves, and that drinking the ſame quantity of warm water would be equally pernicious. This, however, ſeems to be a miſtake. Many perſons drink three or four cups of warm milk and water daily, without feeling any bad conſequences; yet the ſame quantity of tea will make their hands ſhake for twenty-four hours. That tea affects the nerves, is likewiſe evident from its preventing ſleep, occaſioning giddineſs, dimneſs of the ſight, ſickneſs, &c.

from

from wounds of the nerves themſelves, from the poiſonous fumes of metals or minerals, as mercury, lead, arſenic.

In young perſons of a full habit the palſy muſt be treated in the ſame manner as the ſanguine apoplexy. The patient muſt be bled, bliſtered, and have his body opened by ſharp clyſters or purgative medicines. But, in old age, or when the diſeaſe proceeds from relaxation or debility, which is generally the caſe, a quite contrary courſe muſt be purſued*. The diet muſt be warm and invigorating, ſeaſoned with ſpicy and aromatic vegetables, as muſtard, horſe-radiſh, &c. The drink may be generous wine and muſtard-whey. Friction with the fleſh-bruſh or a warm hand, is extremely proper, eſpecially on the parts affected. Bliſtering-plaſters may likewiſe be applied to the affected parts with advantage, and particularly to the head in caſes of coma or delirium. When this cannot be done, they may be rubbed with the volatile liniment, or the nerve ointment of the Edinburgh diſpenſatory. One of the beſt external applications is electricity. The ſhocks ſhould be received on the part affected; and they ought daily to be repeated for ſeveral weeks.

Cephalic ſnuff, or any thing that makes the patient ſneeze, is likewiſe of uſe. Some pretend to have found great benefit from rubbing the parts affected with nettles; but this does not ſeem to be any way preferable to bliſtering. If the tongue is affected, the patient may gargle his mouth frequently with brandy and muſtard; or he may hold a bit of ſugar in his mouth wet with the compound ſpirits of lavender. The wild valerian root is a very proper

* It often happens, however, that the ſame treatment directed for the young is neceſſary in old perſons, at leaſt in a degree, if the pulſe is vigorous, and there are ſymptoms of fulneſs.

medicine in this caſe. It may either be taken in an infuſion with ſage-leaves, or half a drachm of it in powder may be given in a glaſs of wine three times a-day. If the patient cannot uſe the valerian, he may take of *ſal volatile oleoſum*, compound ſpirits of lavender, and tincture of caſtor, each half an ounce; mix theſe together, and take forty or fifty drops in a glaſs of wine three or four times a-day. A table-ſpoonful of muſtard-ſeed taken daily about eleven o'clock, is a very good medicine. The patient ought likewiſe to chew cinnamon bark, ginger, or other warm ſpiceries.

Exerciſe is of the utmoſt importance in the palſy; but the patient muſt beware of cold, damp, and moiſt air. He ought to wear flannel next his ſkin; and, if poſſible, ſhould remove into a warmer climate.

OF THE EPILEPSY, OR FALLING SICKNESS.

The epilepſy is a ſudden deprivation of all the ſenſes, wherein the patient falls ſuddenly down, and is affected with violent convulſive motions. Children, eſpecially thoſe who are delicately brought up, are moſt ſubject to it. It more frequently attacks men than women, and is often very difficult to cure. When the epilepſy attacks children, there is reaſon to hope it may go off about the time of puberty.

When it attacks any perſon after twenty years of age, the cure is difficult; but when after forty, a cure is hardly to be expected. If the fit continues only for a ſhort ſpace, and returns ſeldom, there is reaſon to hope; but if it continues long, and returns frequently, the proſpect is bad. It is an unfavourable ſymptom when the patient is ſeized with the fits in his ſleep.

CAUSES.—The epilepſy is ſometimes hereditary. It may likewiſe proceed from blows, bruiſes, or wounds

on

on the head; a collection of water, blood, or serous humors in the brain; a polypus; tumors or concretions within the skull; excessive drinking; intense study; much bodily fatigue; excess of venery; worms; teething; suppression of customary evacuations; too great emptiness or repletion; violent passions or affections of the mind, as fear, joy, &c.; hysteric affections; contagion received into the body, as the infection of the small-pox, measles, &c.

SYMPTOMS.—An epileptic fit is generally preceded by unusual weariness; pain of the head; dulness; giddiness; noise in the ears; dimness of sight; palpitation of the heart; disturbed sleep; difficult breathing; the bowels are inflated with wind; the urine is in great quantity, but thin; the complexion is pale; the extremities are cold; and the patient often feels, as it were, a stream of cold air ascending towards his head, and it often comes on suddenly without any previous notice.

In the fit, the patient generally makes an unusual noise; his thumbs are drawn in towards the palms of his hands; his eyes are distorted; he starts, and foams at the mouth; his extremities are bent or twisted various ways; he often discharges his urine and fæces involuntarily; and is quite destitute of all sense and reason. After the fit is over, his senses gradually return, and he complains of a kind of stupor, weariness, and pain of his head; but has no remembrance of what happened to him during the fit.

The fits are sometimes excited by violent affections of the mind, a debauch of liquor, excessive heat, cold, or the like.

This disease, from the difficulty of investigating its causes, and its strange symptoms, was formerly attributed to the wrath of the gods, or the agency of evil spirits. In modern times it has often, by the vulgar, been imputed to witchcraft or fascination.

tion. It depends, however, as much upon natural cauſes as any other malady; and its cure may often be affected by perſiſting in the uſe of proper means.

REGIMEN.—Epileptic patients ought, if poſſible, to breathe a pure and free air. Their diet ſhould be light but nouriſhing. They ought to drink nothing ſtrong, to avoid ſwine's fleſh, waterfowl, and likewiſe all windy and oily vegetables, as cabbage, nuts, &c. They ought to endeavour to keep themſelves cheerful, carefully guarding againſt all violent paſſions, as anger, fear, exceſſive joy, and the like.

Exerciſe is likewiſe of great uſe; but the patient muſt be careful to avoid all extremities either of heat or cold, all dangerous ſituations, as ſtanding upon precipices, riding through deep waters, and ſuch like.

MEDICINE.—The intentions of cure muſt vary according to the cauſe of the diſeaſe. If the patient be of a ſanguine temperament, and there be reaſon to fear an obſtruction in the brain, bleeding and other evacuations will be neceſſary. When the diſeaſe is occaſioned by the ſtoppage of cuſtomary evacuations, theſe, if poſſible, muſt be reſtored; if this cannot be done, others may be ſubſtituted in their place. Iſſues or ſetons in this caſe have often a very good effect. When there is reaſon to believe that the diſeaſe proceeds from worms, proper medicines muſt be uſed to kill, or carry off theſe vermin. When the diſeaſe proceeds from teething, the body ſhould be kept open by emollient clyſters, the feet frequently bathed in warm water, and, if the fits prove obſtinate, a bliſtering-plaſter may be put between the ſhoulders. When epileptic fits precede the eruption of the ſmall-pox or meaſles, the method pointed out in the chapter on the ſmall-pox is to be followed.

When

When the diſeaſe is hereditary, or proceeds from a wrong formation of the brain, a cure is ſcarcely to be expected. When it is owing to a debility, or too great an irritibility of the nervous ſyſtem, ſuch medicines as tend to brace and ſtrengthen the nerves may be uſed, as the Peruvian bark, and ſteel.

The flowers of zinc have been highly extolled for the cure of the epilepſy. Though this medicine will not be found to anſwer the expectations which have been raiſed concerning it, yet in obſtinate epileptic caſes it well deſerves a trial. The doſe is from one to three or four grains, which may be taken either in pills or a bolus, as the patient inclines. The beſt method is to begin with a ſingle grain four or five times a-day, and gradually to increaſe the doſe as far as the patient can bear it. I have known this medicine, when duly perſiſted in, prove beneficial. The cuprum ammoniacum in the form of pills, two grains two or three times a-day, and the blue vitriol in the ſame form, in a doſe of one fourth of a grain twice a-day, are of great ſervice in thoſe caſes of epilepſy which are evidently connected with hyſteria; and it is in theſe caſes the zinc does good.

Muſk has ſometimes been found to ſucceed in the epilepſy. Ten or twelve grains of it, with the ſame quntity of factitious cinnabar, may be made up into a bolus, and taken every night and morning.

Sometimes the epilepſy has been cured by electricity. Change of air will often produce the moſt happy effects.

Many kind of convulſion-fits proceed from the ſame cauſes, and muſt be treated in the ſame manner as the epilepſy.

There is one particular ſpecies of convulſion-fits which commonly goes by the name of St Vitus's dance, wherein the patient is agitated with ſtrange motions and geſticulations, which by the common people

people are generally believed to be the effects of witchcraft. This diſeaſe may be cured by repeated bleedings and purges; and afterwards uſing the medicines preſcribed above for the epilepſy, viz. the Peruvian bark, cuprum ammoniacum, and blue vitriol. Chalybeate waters are found to be beneficial in this caſe. The cold bath is likewiſe of ſingular ſervice, and ought never to be neglected when the patient can bear it. Change of climate and ſea voyages are remedies of the utmoſt importance in this diſeaſe.

OF THE HICCUP.

The hiccup is a ſpaſmodic or convulſive affection of the ſtomach and midriff, ariſing from any cauſe that irritates their nervous fibres.

It may proceed from exceſs in eating or drinking; from a hurt of the ſtomach; poiſons; inflammations or ſchirrous tumors of the ſtomach, inteſtines, bladder, midriff, or the reſt of the *viſcera*. In gangrenes, acute and malignant fevers, a hiccup is often the forerunner of death.

When the hiccup proceeds from the uſe of aliment that is flatulent, or hard of digeſtion, a draught of generous wine, or a tea-cupful of mint-water will generally remove it. If poiſon be the cauſe, plenty of milk and oil muſt be drank, as has been formerly recommended. When it proceeds from an inflammation of the ſtomach, &c. it is very dangerous. In this caſe the cooling regimen ought to be ſtrictly obſerved. The patient muſt be bled, and a bliſter applied to the region of the ſtomach.

When the hiccup proceeds from a gangrene or mortification, the Peruvian bark, with other antiſeptics, are the only medicines which have a chance to ſucceed. When it is a primary diſeaſe, and proceeds

ceeds from a foul ſtomach, loaded either with a pituitous or a bilious humor, a gentle vomit and purge, if the patient be able to bear them, will be of ſervice. If it ariſes from flatulencies, the carminative medicines muſt be uſed.

When the hiccup proves very obſtinate, recourſe muſt be had to the moſt powerful aromatic and antiſpaſmodic medicines. The principal of theſe is muſk; fifteen or twenty grains of which may be made into a bolus and repeated occaſionally. Opiates are likewiſe of ſervice. A bit of ſugar dipped in compound ſpirits of lavender, or the volatile aromatic tincture, may be taken frequently. External applications are ſometimes alſo beneficial; as the ſtomach plaſter, or a cataplaſm of the Venice treacle of the Edinburgh or London Diſpenſatory, applied to the region of the ſtomach.

I lately attended a patient who had almoſt a conſtant hiccup for above nine weeks. It was frequently ſtopped by the uſe of muſk, opium, wine, and other cordial and antiſpaſmodic medicines, but always returned. Nothing, however, gave the patient ſo much eaſe as briſk ſmall-beer. By drinking freely of this, the hiccup was often kept off for ſeveral days, which was more than could be done by the moſt powerful medicines. The patient was at length ſeized with a vomiting of blood, which ſoon put an end to his life. Upon opening the body, a large ſchirrous tumor was found near the pylorus or right orifice of the ſtomach.

The hiccup may be removed by taking vinegar, or a few drops of the oil of vitriol taken in water. We know the hiccup may ſometimes be removed by fright, and by holding the mouth full of water; ſtuffing the mouth with brown ſugar has ſucceeded in very bad caſes.

CRAMP

CRAMP OF THE STOMACH.

This diſeaſe often ſeizes people ſuddenly, is very dangerous, and requires immediate aſſiſtance. It is moſt incident to perſons in the decline of life, eſpecially the nervous, gouty, hyſteric, and hypochondriac.

If the patient has great inclination to vomit, he ought to take ſome draughts of warm-water, or weak camomile-tea, to cleanſe his ſtomach. After this, if he has been coſtive, a laxative clyſter may be given. He ought then to take laudanum. The beſt way of adminiſtering it is in a clyſter. Sixty or ſeventy drops of liquid laudanum may be given in a clyſter of warm-water. This is much more certain than laudanum given by the mouth, which is often vomited, and in ſome caſes, though rarely, increaſes the pain and ſpaſms in the ſtomach*.

If the pain and cramps return with great violence, after the effects of the anodyne clyſter are over, another, with an equal or a larger quantity of opium, may be given; and every four or five hours a bolus, with ten or twelve grains of muſk, and half a drachm of the Venice treacle.

In the mean time, the ſtomach ought to be fomented with cloths dipped in warm water, or bladders filled with warm milk and water ſhould be conſtantly applied to it. I have often ſeen theſe produce the moſt happy effects. The anodyne balſam may alſo be rubbed on the part affected; and an anti-hyſteric plaſter worn upon it for ſome time after the cramps are removed, to prevent their return.

In very violent and laſting pains of the ſtomach, ſome blood ought to be let, unleſs the weakneſs of the patient forbids it. When the pain or cramps

* If, however, the pain of the ſtomach is violent, laudanum muſt always be given internally, either alone, or mixed with ether, muſk, &c.

proceed from a ſuppreſſion of the *menſes*, with plethora, bleeding is of uſe. If they be owing to the gout, recourſe muſt be had to ether, or ſome of the warm cordial waters. Bliſtering-plaſters ought likewiſe in this caſe to be applied to the ankles. I have often ſeen violent cramps and pains of the ſtomach removed by covering it with a large plaſter of Venice treacle.

OF THE NIGHT-MARE.

In this diſeaſe, the patient, in time of ſleep, imagines he feels an uncommon oppreſſion or weight about his breaſt or ſtomach, which he can by no means ſhake off. He groans, and ſometimes cries out, though oftener he attempts to ſpeak in vain. Sometimes he imagines himſelf engaged with an enemy, and in danger of being killed, attempts to run away, but finds he cannot. Sometimes he fancies himſelf in an houſe that is on fire, or that he is in danger of being drowned in a river. He often thinks he is falling over a precipice, and the dread of being daſhed to pieces ſuddenly awakes him.

This diſorder has been ſuppoſed to proceed from too much blood; from a ſtagnation of blood in the brain, lungs, &c. But it is rather a nervous affection, and ariſes chiefly from indigeſtion. Hence we find that perſons of weak nerves, who lead a ſedentary life, and live full, are moſt commonly afflicted with the night-mare. Nothing tends more to produce it than heavy ſuppers, eſpecially when eaten late, or the patient goes to bed ſoon after. Wind is likewiſe a very frequent cauſe of this diſeaſe; for which reaſon thoſe who are afflicted with it ought to avoid all flatulent food. Deep thought, anxiety, or any thing that oppreſſes the mind, ought alſo to be avoided.

As

As perſons afflicted with the night-mare generally moan, or make ſome noiſe in the fit, they ſhould be waked, or ſpoken to by ſuch as hear them, as the uneaſineſs generally goes off as ſoon as the patient is awake. We would have the patient depend upon the uſe of food of eaſy digeſtion, cheerfulneſs, exerciſe through the day, and a light ſupper taken early. A glaſs of pepper-mint-water will promote digeſtion when any thing of this kind is neceſſary.

Perſons who are young, and full of blood, if troubled with the night-mare, ought to take a purge frequently, and uſe a ſpare diet.

OF SWOONINGS.

People of weak nerves or delicate conſtitutions are liable to ſwoonings or fainting-fits. Theſe indeed are ſeldom dangerous when duly attended to; but when wholly neglected, or improperly treated, they often prove hurtful, and ſometimes fatal.

The general cauſes of ſwoonings are, ſudden tranſition from cold to heat; breathing air that is deprived of its proper ſpring or elaſticity; great fatigue; exceſſive weakneſs; loſs of blood; long faſting; fear, grief, and other violent paſſions or affections of the mind.

It is well known, that perſons who have been long expoſed to cold, often faint or fall into a ſwoon, upon coming into the houſe, eſpecially if they drink hot liquor, or ſit near a large fire. This might eaſily be prevented by taking care not to go into a warm room immediately after having been expoſed to the cold air, to approach the fire gradually, and not to eat or drink any thing hot, till the body has been gradually brought into a warm temperature.

When any one, in conſequence of neglecting theſe precautions, falls into a ſwoon, he ought immediately to

to be removed to a cooler apartment, to have ligatures applied above his knees and elbows, and to have his hands and face ſprinkled with vinegar or cold water. He ſhould likewiſe be made to ſmell to vinegar, and ſhould have a ſpoonful or two of water, if he can ſwallow, with about a third part of vinegar mixed with it, poured into his mouth. If theſe ſhould not remove the complaint, it will be neceſſary to bleed the patient if the pulſe will bear it, and afterwards to give him a clyſter.

As air that is breathed frequently loſes its elaſticity or ſpring, it is no wonder if perſons who reſpire in it often fall into a ſwoon or fainting fit. They are in this caſe deprived of the very principle of life. Hence it is that fainting fits are ſo frequent in all crowded aſſemblies, eſpecially in hot ſeaſons. Such fits, however, muſt be conſidered as a kind of temporary death; and, to the weak and delicate, they ſometimes prove fatal. They ought, therefore, with the utmoſt care to be guarded againſt. The method of doing this is obvious. Let all places of public reſort, be large and well ventilated; and let the weak and delicate avoid ſuch places, particularly in warm ſeaſons.

A perſon who faints, in ſuch a ſituation, ought immediately to be carried into the open air; his temples ſhould be rubbed with ſtrong vinegar or brandy, and volatile ſpirits or ſalts held to his noſe. He ſhould be laid upon his back, with his head low, and have a little wine or ſome other cordial, as ſoon as he is able to ſwallow it, poured into his mouth. If the perſon has been ſubject to hyſteric fits, caſtor or aſafœtida ſhould be applied to the noſe, or burnt feathers, horn, or leather, &c.

When fainting fits proceed from mere weakneſs or exhauſtion, which is often the caſe after great fatigue, long faſting, loſs of blood, or the like, the patient muſt be ſupported with generous cordials, as jellies, wines, &c. Theſe, however, muſt be given at firſt in very ſmall quantities, and increaſed gradually as the patient is able to bear them. He ought to be allowed to lie quite ſtill and eaſy upon his back, with his head low, and ſhould have freſh air admitted into his chamber. His food ſhould conſiſt of nouriſhing broths, ſago-gruel with wine, new milk, and other things of a light and cordial nature. Theſe things are to be given out of the fit. All that can be done in the fit is, to let him ſmell to a bottle of Hungary water, *eau de luce*, or ſpirits of hartſhorn, and to rub his temples with warm brandy, or to lay a compreſs dipped in it to the pit of the ſtomach.

In fainting fits that proceed from fear, grief, or other violent paſſions or affections of the mind, the patient muſt be very cautiouſly managed. He ſhould be ſuffered to remain at reſt, and only made to ſmell to ſome vinegar. After he is come to himſelf, he may drink freely of warm lemonade, or balm-tea, with ſome orange or lemon-peel in it. It will likewiſe be proper, if the fainting fits have been long and ſevere, to cleanſe the bowels by throwing in an emollient clyſter.

It is common in fainting fits, from whatever cauſe they proceed, to bleed the patient. This practice may be very proper in ſtrong perſons of a full habit; but in thoſe who are weak and delicate, or ſubject to nervous diſorders, it is dangerous. The proper method with ſuch people is, to expoſe them to the free air, and to uſe cordial and ſtimulating medicines, as volatile ſalts, Hungary-water, ſpirits of lavender, tincture of caſtor and the like.

OF

OF FLATULENCIES, OR WIND.

All nervous patients, without exception, are afflicted with wind or flatulencies in the ſtomach and bowels, which ariſe chiefly from the want of tone or vigour in theſe organs. Crude flatulent aliment, as green peas, beans, coleworts, cabbages, and ſuch like, may increaſe this complaint; but ſtrong and healthy people are ſeldom troubled with wind, unleſs they either overload their ſtomachs, or drink liquors that are in a fermenting ſtate, and conſequently full of elaſtic air. While, therefore, the matter of flatulence proceeds from our aliments, the cauſe which makes air ſeparate from them in ſuch quantity as to occaſion complaints, is almoſt always a fault of the bowels themſelves, which are too weak either to prevent the production of elaſtic air, or to expel it after it is produced.

To relieve this complaint, ſuch medicines ought to be uſed as have a tendency to expel wind, and by ſtrengthening the alimentary canal, to prevent its being produced there*.

The liſt of medicines for expelling wind is very numerous; they often, however, diſappoint the expectations of both the phyſician and his patient. The moſt celebrated among this claſs of carminatives are juniper-berries; the roots of ginger and zedoary; the ſeeds of aniſe, caraway, and coriander; gum aſafœtida and opium; the warm waters, tinctures, and ſpirits, as the aromatic water, the tincture of woodſoot, the volatile aromatic ſpirit, ether, &c.

* Many nervous people find great benefit from eating a dry biſcuit, eſpecially when the ſtomach is empty. I look upon this as one of the beſt carminative medicines: and would recommend it in all complaints of the ſtomach, ariſing from flatulence, indigeſtion, &c.

Dr Whytt says, he found no medicines more efficacious in expelling wind, than æther and laudanum. He generally gave the laudanum in a mixture with peppermint water and tincture of castor, or sweet spirits of nitre. Sometimes, in place of this, he gave opium in pills with asafœtida. He observes, that the good effects of opiates are equally conspicuous, whether the flatulence be contained in the stomach or intestines; whereas those warm medicines, commonly called *carminatives*, do not often give immediate relief, except when the wind is in the stomach.

With regard to æther, the Doctor says, he has often seen very good effects from it in flatulent complaints, where other medicines failed. The dose is a tea-spoonful mixed with two table-spoonfuls of water*.

When the case of flatulent patients is such as makes it improper to give them warm medicines inwardly, the Doctor recommends external applications, which are sometimes of advantage. Equal parts of the anti-hysteric and stomach plaster may be spread upon a piece of soft leather, of such size as to cover the greater part of the belly. This should be kept on for a considerable time, provided the patient be able to bear it; if it should give great uneasiness, it may be taken off, and the following liniment used in its stead:

Take of Bates's anodyne balsam an ounce; of the expressed oil of mace half an ounce; oil of mint, two drachms. Let these ingredients be mixed together, and about a table-spoonful well rubbed on the parts at bed-time.

* Though the patient may begin with this quantity, it will be necessary to increase the dose gradually, as the stomach can bear it. Æther is now given in considerably greater doses than it was in Dr Whytt's time.

For

For ſtrengthening the ſtomach and bowels, and conſequently for leſſening the production of flatulence, the Doctor recommends the Peruvian bark, bitters, chalybeates, and exerciſe. In flatulent caſes, he thinks ſome nutmeg or ginger ſhould be added to the tincture of the bark and bitters, and that the aromatic powder ſhould be joined with the filings of iron.

When windy complaints are attended with coſtiveneſs, which is often the caſe, few things will be found to anſwer better than four or five of the following pills, taken every night at bed time:

Take of aſafœtida two drachms; ſocotorine aloes, ſalt of iron, and powdered ginger, of each one drachm; as much of the *elixir proprietatis* as will be ſufficient to form them into pills.

On the other hand, when the body is too open, twelve or fifteen grains of rhubarb, with half a drachm or two ſcruples of the Japonic confection, given every other evening, will have very good effects.

In thoſe flatulent complaints which come on about the time the *menſes* ceaſe, repeated ſmall bleedings often give more relief than any other remedy.

With regard to diet, the Doctor obſerves, that tea, and likewiſe all flatulent aliments are to be avoided.

As Dr Whytt has paid great attention to this ſubject, and as his ſentiments upon it in a great meaſure agree with mine, I have taken the liberty to adopt them; and ſhall only add to his obſervations, that exerciſe is, in my opinion, ſuperior to all medicine, both for preventing the production and likewiſe for expelling of flatulencies. Theſe effects, however, are not to be expected from ſauntering about, or lolling in a carriage; but from labour,

or ſuch active amuſements as give exerciſe to every part of the body.

OF LOW SPIRITS.

All who have weak nerves are ſubject to low ſpirits, in a greater or leſs degree. Generous diet, the cold bath, exerciſe, and amuſements, are the moſt likely means to remove this complaint. It is greatly increaſed by ſolitude and indulging gloomy ideas; but may often be relieved by cheerful company and ſprightly amuſements.

When low ſpirits are owing to a weak relaxed ſtate of the ſtomach and bowels, an infuſion of the Peruvian bark, with cinnamon, or nutmeg, will be proper. Steel joined with aromatics may likewiſe in this caſe be uſed with advantage; but riding, and a proper diet, are moſt to be depended on.

When they ariſe from a foulneſs of the ſtomach and inteſtines, or obſtruction in the hypochondriac viſcera, aloetic purges will be proper. I have ſometimes known the Harrowgate ſulphur-water of ſervice in this caſe.

When low ſpirits proceed from a ſuppreſſion of the menſtrual or of the hæmorrhoidal flux, theſe evacuations may either be reſtored, or ſome others ſubſtituted in their place, as iſſues, ſetons, or the like. Dr Whytt obſerves, that nothing has ſuch ſudden good effects in this caſe as bleeding. The propriety of this evacuation, however, muſt depend on the ſtate of the pulſe and general habit.

When low ſpirits have been brought on by long-continued grief, anxiety, or other diſtreſs of mind, agreeable company, variety of amuſements, and change of place, eſpecially travelling into foreign countries, will afford the moſt certain relief.

Perſons

Perſons afflicted with low ſpirits ſhould avoid all kinds of exceſs, eſpecially of venery and ſtrong liquors. The moderate uſe of wine is by no means hurtful; but when taken to exceſs, it weakens the ſtomach, vitiates the humors, and depreſſes the ſpirits. This caution is the more neceſſary, as the unfortunate and melancholy often fly to ſtrong liquors for relief, by which means they never fail to precipitate their own deſtruction.

OF HYSTERIC AFFECTIONS.

Theſe alſo belong to the numerous tribe of nervous diſeaſes, which may be reckoned the reproach of medicine. Women of a delicate habit, whoſe ſtomach and inteſtines are relaxed, and whoſe nervous ſyſtem is extremely ſenſible, are moſt ſubject to hyſteric complaints. In ſuch perſons an hyſteric fit, as it is called, may be brought on by an irritation of the nerves of the ſtomach or inteſtines, by wind, acrid humor, or the like. A ſudden ſuppreſſion of the *menſes* often gives riſe to hyſteric fits. They may likewiſe be excited by violent paſſions or affections of the mind, as fear, grief, anger, or great diſappointments.

Sometimes the hyſteric fit reſembles a ſwoon or fainting fit, during which the patient lies as in a ſleep, only the breathing is ſo low as ſcarce to be perceived. At other times the patient is affected with catchings and ſtrong convulſions. The ſymptoms which precede hyſteric fits are likewiſe various in different perſons. Sometimes the fits come on with coldneſs of the extremities, yawning and ſtretching, lowneſs of ſpirits, oppreſſion and anxiety. At other times the approach of the fit is foretold by a feeling, as if there were a ball at the lower part of the belly, which gradually riſes to-

wards the ſtomach, where it occaſions inflation, ſickneſs, and ſometimes vomiting; afterwards it riſes into the gullet, and occaſions a degree of ſuffocation, to which quick breathing, palpitation of the heart, giddineſs of the head, dimneſs of the ſight, loſs of hearing, with convulſive motions of the extremities and other parts of the body, ſucceed. The hyſteric paroxyſm is often introduced by an immoderate fit of laughter, and ſometimes it goes off by crying. Indeed there is not much difference between the laughing and crying of an highly hyſteric lady.

Our aim in the treatment of this diſeaſe muſt be to ſhorten the fit or paroxyſm when preſent, and to prevent its return. The longer the fits continue, and the more frequently they return, the diſeaſe becomes the more obſtinate. Their ſtrength is increaſed by habit, and they induce ſo great a relaxation of the ſyſtem, that it is with difficulty removed.

It is cuſtomary, during the hyſteric fit or paroxyſm, to bleed the patient. In ſtrong perſons of a plethoric habit, and where the pulſe is full, this is often proper; but in weak and delicate conſtitutions, or where the diſeaſe has been of long ſtanding, or ariſes from inanition, it is not ſo ſafe. The beſt courſe in ſuch caſes is to rouſe the patient by ſtrong ſmells, as burnt feathers, aſafœtida, or ſpirits of hartſhorn, held to the noſe. Hot bricks may alſo be applied to the ſoles of the feet, and the legs, arms, and belly may be ſtrongly rubbed with a warm cloth. But the beſt application is to put the feet and legs into warm water. This is peculiarly proper when the fits precede the flow of the menſes. In caſe of coſtiveneſs, a laxative clyſter, with aſafœtida, will be proper; and as ſoon as the patient can ſwallow, two table-ſpoonfuls of a ſolution

tion of afafœtida, or of ſome cordial julep, may be given*.

The radical cure of this diſorder will be beſt attempted at a time when the patient is moſt free from the fits. It will be greatly promoted by a proper attention to diet. A milk and vegetable diet, when duly perſiſted in, will often perform a cure. If, however, the patient has been accuſtomed to a more generous diet, it will not be ſafe to leave it off all at once, but by degrees. The beſt general rule in theſe caſes is to uſe a low diet, when the patient is apt to be feveriſh, but not to perſiſt in it, if the ſtomach is weakened by it. The moſt proper drink is water with a ſmall quantity of wine. A cool dry air is the beſt. Cold bathing, and every thing that braces the nerves, and invigorates the ſyſtem, is beneficial; but lying too long in bed, or whatever relaxes the body, is hurtful. It is of the greateſt importance to have the mind kept conſtantly eaſy and cheerful; and, if poſſible, to have it always engaged in ſome agreeable and intereſting purſuit.

The proper medicines are thoſe which ſtrengthen the alimentary canal and the whole nervous ſyſtem, as the preparations of iron, the Peruvian bark, and other bitters. Twenty drops of the elixir of vitriol, in a cup of the infuſion of the bark, may be taken twice or thrice a-day. The bark and

* When hyſteric fits are occaſioned by ſympathy, they may be cured by exciting an oppoſite paſſion. This is ſaid to have been the caſe with a whole ſchool of young ladies in Holland, who were all cured by being told, that the firſt who was ſeized ſhould be burnt to death. But this method of cure, to my knowledge, will not always ſucceed. I would therefore adviſe, that young ladies who are ſubject to hyſteric fits ſhould not be ſent to boarding ſchools, as the diſeaſe may be caught by imitation. I have known madneſs itſelf brought on by ſympathy.

iron

iron may likewiſe be taken in ſubſtance, provided the ſtomach can bear them; but they are generally given in too ſmall doſes to have any effect. The chalybeate waters generally prove beneficial in this diſorder.

If the ſtomach is loaded with phlegm, vomits will be of uſe; but they ſhould not be too ſtrong, nor frequently repeated, as they tend to relax and weaken the ſtomach. If there be a tendency to coſtiveneſs, it muſt be removed either by diet, or by taking an opening pill as often as it ſhall be found neceſſary.

To leſſen the irritability of the ſyſtem, antiſpaſmodic medicines will be of uſe. The beſt antiſpaſmodic medicines are aſafœtida, muſk, opium, and caſtor. When opium diſagrees with the ſtomach, it may either be applied externally, or given in clyſters. It is often ſucceſsful in removing thoſe periodical head-aches to which hyſteric and hypochondriac patients are ſubject. Caſtor has in ſome caſes been found to procure ſleep where opium failed; for which reaſon Dr Whytt adviſes, that they ſhould be joined together. He likewiſe recommends the anti-hyſteric plaſter to be applied to the abdomen*.

Hyſteric women are often afflicted with cramps in various parts of the body, which are moſt apt to ſeize them in bed, or when aſleep. The moſt efficacious medicines in this caſe are opium, bliſtering-plaſters, and warm bathing or fomentations. When the cramp or ſpaſm is very violent, opium is

* Though antiſpaſmodics and anodynes are univerſally recommended in this diſeaſe, yet all the extraordinary cures that I ever knew in hyſteric caſes, were performed by means of tonic and corroborating medicines; and though it may often be neceſſary to uſe opium, yet it is by no means a ſafe medicine to be in the conſtant uſe of: aſafœtida is, generally, equally or more powerful, and perfectly ſafe.

the

the remedy moſt to be depended on. In milder caſes, immerſing the feet and legs in warm water, or applying a bliſtering plaſter to the part affected, will often be ſufficient to remove the complaint. In patients whoſe nerves are uncommonly delicate and ſenſible, it will be better to omit the bliſtering-plaſter, and to attempt the cure by opiates, muſk, camphire, and the warm bath.

Cramps are often prevented or cured by compreſſion. Thus, cramps in the legs are prevented, and ſometimes removed, by tight bandages; and when convulſions ariſe from a flatulent diſtention of the inteſtines, or from ſpaſms beginning in them, they may be often leſſened or cured by making a pretty ſtrong compreſſion upon the *abdomen*, by means of a broad belt. A roll of brimſtone, held in the hand, is frequently uſed as a remedy for cramps. Though this ſeems to owe its effects chiefly to imagination; yet, as it ſometimes ſucceeds, it merits a trial*. When ſpaſms or convulſive motions ariſe from ſharp humors in the ſtomach and inteſtines, no laſting relief can be procured till theſe are either corrected or expelled. The Peruvian bark has ſometimes cured periodic convulſions, after other medicines had failed. The great remedy, however, is air and exerciſe.

OF HYPOCHONDRIAC AFFECTIONS.

This diſeaſe generally attacks the indolent, the luxurious, the unfortunate, and the ſtudious. It becomes daily more common in this country, owing, no doubt, to the increaſe of luxury and ſedentary

* Some perſons afflicted with cramps pretend to reap great benefit from ſmall bundles of roſemary tied all night about their feet, ankles, and knees.

employments.

employments. It has so near a resemblance to that immediately preceding, that many authors consider them as the same disease, and treat them accordingly. They require, however, a very different regimen: and the symptoms of the latter, though less violent, are more permanent than those of the former.

Men of a melancholy temperament, whose minds are capable of great attention, and whose passions are not easily moved, are, in the advanced periods of life, most liable to this disease. It is usually brought on by long and serious attention to abstruse subjects, grief, the suppression of customary evacuations, excess of venery, the repulsion of cutaneous eruptions, long-continued evacuations, obstructions in some of the viscera, as the liver, spleen, &c.

Hypochondriac persons, ought never to fast long, and their food should be solid and nourishing. All ascescent and windy vegetables are to be avoided. Flesh meats agree best with them, and their drink should be old claret, or good Madeira.

Cheerfulness and serenity of mind, are by all means to be cultivated. Exercise of every kind is useful. The cold bath is likewise beneficial; and, where it does not agree with the patient, frictions with the flesh-brush, or a coarse cloth, may be tried. If the patient has it in his power, he ought to travel either by sea or land. *A voyage or a long journey, especially towards a warmer climate, will be of more service than any medicine.*

The general intentions of cure, in this disease, are to strengthen the alimentary canal, and to promote the secretions. These intentions will be best answered by the different preparations of iron and the Peruvian bark, which, after proper evacuations, may be taken in the same manner as directed in the preceding disease.

If

If the patient be coſtive, it will be neceſſary to make uſe of ſome gentle opening medicine, as pills compoſed of equal parts of aloes, rhubarb, and aſafœtida, with as much of the elixir proprietatis as is neceſſary to form the ingredients into pills. Two, three, or four of theſe may taken as often as it ſhall be found needful, to keep the body gently open. Such as cannot bear the aſafœtida may ſubſtitute Spaniſh ſoap in its place.

Though a cheerful glaſs may have good effects in this diſeaſe, yet all manner of exceſs is hurtful. Intenſe ſtudy, and every thing that depreſſes the ſpirits, are likewiſe pernicious.

Though the general ſymptoms and treatment of nervous diſorders, were pointed out in the beginning of this chapter; yet, for the benefit of thoſe unhappy perſons afflicted with theſe obſtinate and complicated maladies, I have treated ſeveral of their capital ſymptoms under diſtinct or ſeparate heads. Theſe, however, are not to be conſidered as different diſeaſes, but as various modifications of the ſame diſeaſe. They all ariſe from the ſame general cauſes, and require nearly the ſame method of treatment. There are many other ſymptoms that merit particular attention, which the nature of my plan will not permit me to treat of at full length. I ſhall therefore omit them altogether, and conclude this chapter with a few general remarks, on the moſt obvious means of preventing or avoiding nervous diſorders.

In all perſons afflicted with nervous diſorders, there is a great delicacy and ſenſibility of the whole nervous ſyſtem, and an uncommon degree of weakneſs of the organs of digeſtion. Theſe may be either natural or acquired. When owing to a defect in the conſtitution, they are difficult to be removed; but may be mitigated by proper care. When induced by diſeaſes, as long or repeated fe-

vers, profuſe hæmorrhages, or the like, they prove alſo very obſtinate, but will yield to a courſe of regimen and exerciſe calculated to reſtore and invigorate the habit.

But nervous affections ariſe more frequently from cauſes, which it is in a great meaſure in our own power to avoid, than from diſeaſes, or an original fault in the conſtitution, &c. Exceſſive grief, intenſe ſtudy, improper diet, and *neglect of exerciſe*, are the great ſources of this extenſive claſs of diſeaſes.

It has been already obſerved that grief indulged deſtroys the appetite and digeſtion, depreſſes the ſpirits, and induces an univerſal relaxation and debility of the whole ſyſtem. Inſtances of this are daily to be ſeen. The loſs of a near relation, or any other misfortune in life, is often ſufficient to occaſion the moſt complicated ſeries of nervous ſymptoms. Such misfortunes, indeed, are not to be avoided, but ſurely their effects, by a vigorous and proper exertion of the mind, might be rendered leſs hurtful. For directions in this matter, we muſt refer the reader to the article GRIEF, in the chapter on the paſſions.

The effects of intenſe ſtudy are pretty ſimilar to thoſe occaſioned by grief. It preys upon the animal ſpirits, and deſtroys the appetite and digeſtion. To prevent theſe effects, ſtudious perſons ought, according to the Poet, *to toy with their books**. They ſhould never ſtudy too long at a time; nor attend long to one particular ſubject, eſpecially if it be of a ſerious nature. They ought likewiſe to be attentive to their poſture, and ſhould take care frequently to unbend their minds by muſic, diverſions, or going into agreeable company.

With regard to diet, I ſhall only obſerve, that nervous diſeaſes may be induced either by exceſs or

* Armſtrong on Health.

manition.

inanition. Both of these extremes hurt digestion, and vitiate the humors. When Nature is oppressed with fresh loads of food, before she has had time to digest and assimilate the former meal, her powers are weakened, and the vessels are filled with crude humors. On the other hand, when the food is not sufficiently nourishing, or is taken too seldom, the bowels are inflated with wind, and the humors, for want of regular fresh supplies of wholesome chyle, are vitiated. These extremes are, therefore, with equal care, to be avoided. They both tend to induce a relaxation, and debility of the nervous system, with all its dreadful train of consequences.

But the most general cause of nervous disorders is *indolence*. The active and laborious are seldom troubled with them. They are reserved for the children of ease and affluence, who generally feel their keenest force. All we shall say to such persons is, that the means of prevention and cure are both in their own power. If the constitution of human nature be such, that man must either labour or suffer diseases, surely no individual has any right to expect an exemption from the general rule.

Those, however, who are willing to take exercise, but whose occupations confine them to the house, and perhaps to an unfavourable posture, really deserve our pity. We have, in a former part of the book, endeavoured to lay down rules for their conduct; and shall only add, that where these cannot be complied with, their place may, in some measure, be supplied by the use of bracing and strengthening medicines, as the Peruvian bark, with other bitters; the preparations of steel; the elixir of vitriol, &c.

CHAP.

CHAP. XLV.

Diſorders of the Senſes.

WE do not mean to treat of the nature of our ſenſations, or to give a minute deſcription of the various organs by which they are performed; but to point out ſome of the diſeaſes to which theſe organs are moſt liable, and to ſhew how they may be prevented or remedied.

OF THE EYE.

No organ of the body is ſubject to more diſeaſes than the eye; nor is there any one of which the diſeaſes are more difficult to cure. Though more ignorant perſons pretend to cure theſe than any other claſs of diſeaſes; yet a very ſuperficial acquaintance with the ſtructure of the eye, and the nature of viſion, will be ſufficient to convince any one of the danger of truſting to them. Theſe diſeaſes often exceed the ſkill of the moſt learned phyſician; hence we may eaſily infer the danger of truſting them to ignorant quacks, who, without doubt, put out more eyes than they cure. But, though many diſeaſes of the eye can ſeldom be cured, they might often, by due care, be prevented; and, even where the ſight is totally loſt, many things might be done, which are generally neglected, to render the unhappy perſon both more uſeful to himſelf and to ſociety*.

* It is a pity thoſe who have the misfortune to be born blind, or who loſe their ſight when young, ſhould be ſuffered to remain in ignorance, or to beg. This is both cruelty and want of economy. There are many employments of which blind

The eyes are hurt by viewing bright or luminous objects; keeping the head too long in an hanging poſture; violent head-aches; exceſſive venery; the effluvia from acrid or volatile ſubſtances; various diſeaſes; as the ſmall-pox, meaſles, &c. but, above all, from night-watching, and candle-light ſtudies. Long-faſting is likewiſe hurtful to the eyes, and frequent heats and colds are no leſs pernicious. The eyes are often hurt by the ſtoppage of cuſtomary evacuations; as morning ſweats; ſweating of the feet; the menſes in women; and the bleeding piles in men. All kinds of exceſs are likewiſe hurtful to the ſight, particularly the immoderate uſe of ardent ſpirits and other ſtrong liquors.

In all diſeaſes of the eyes, eſpecially thoſe attended with inflammation, the cool regimen ought to be obſerved. The patient muſt abſtain from all ſpirituous liquors. The ſmoke of tobacco, ſmoky rooms, the vapours of onions and garlic, and all vivid lights and glaring colours, are carefully to be avoided. The drink may be water, whey, or ſmall beer; and the aliment muſt be light and of eaſy digeſtion.

For preventing diſorders of the eyes, iſſues and ſetons are of prime uſe. It will likewiſe be of uſe to keep the body gently open, and either to bleed or purge every ſpring and fall. All exceſs and night

blind perſons are very capable, as knitting, carding, turning a wheel, teaching languages, &c. Nor are inſtances wanting of perſons who have arrived at the higheſt pitch of learning, without having the leaſt idea of light. Witneſs the late famous Nicholas Saunderſon of Cambridge, and my worthy friend Dr. Thomas Blacklock of Edinburgh. The former was one of the firſt mathematicians of his age, and the latter, beſides being a good poet and philoſopher, is maſter of all the learned languages, and a very conſiderable adept in the liberal arts. To theſe we may add the juſtly celebrated natural philoſopher and chymiſt, Doctor Henry Moyes.

ſtudies are to be avoided. Such as do not chuſe a ſeton or an iſſue, will find benefit from wearing a ſmall Burgundy-pitch plaſter between their ſhoulders.

A *gutta ſerena*, or *amauroſis*, is an abolition of the ſight without any apparent cauſe or fault in the eyes. When it is owing to a decay or waſting of the optic nerve, it does not admit of a cure; but when it proceeds from a compreſſion of the nerves by redundant humors, theſe may in ſome meaſure be drained off, and the patient relieved. For this purpoſe, the body muſt be kept open with the mercurial purging pills*. If the patient be young, and of a ſanguine habit, he may be bled. Cupping, with ſcarifications on the back part of the head, will likewiſe be of uſe. But the moſt likely means of relieving the patient are iſſues or bliſters kept open for a long time on the back part of the head, behind the ears, or on the neck. I have known theſe reſtore ſight, even after it had been loſt for a conſiderable time.

Should theſe fail, recourſe may be had to a mercurial ſalivation. After theſe remedies have been tried, or where they are not neceſſary, great relief may be expected from electricity. This ſhould be uſed daily; firſt ſparks, and afterwards ſlight ſhocks, to the affected part.

A *cataract* is an obſtruction of the pupil, by the interpoſition of ſome opaque ſubſtance which either diminiſhes or totally extinguiſhes the ſight. It is generally an opacity of the cryſtalline humor. In a recent or beginning cataract, the ſame medicines are to be uſed as in the gutta ſerena; and they will ſometimes ſucceed. But when this does not happen, and the cataract becomes firm, it muſt be

* See Appendix, *Mercurial purging pill.*

couched,

couched, or rather extracted. I have resolved a recent cataract by giving the patient frequent purges with calomel, keeping a poultice of fresh hemlock constantly upon the eye, and a perpetual blister on the neck.

The *myopia*, or *short sightedness*, and the *presbyopia*, or *seeing only at too great a distance*, are disorders which depend on the original structure or figure of the eye, therefore admit of no cure. The inconveniencies arising from them may, however, be in some measure remedied by the help of proper glasses. The former requires the aid of a concave, and the latter a convex glass.

A *strabismus*, or *squinting*, depends upon an irregular contraction of the muscles of the eye from a spasm, palsy, epilepsy, or an ill habit. Children often contract this disorder by having their eyes unequally exposed to the light. They may likewise acquire it by imitation from a squinting nurse or play-fellow, &c. As this disorder can with difficulty be cured, parents ought to be careful to prevent it. Almost the only thing which can be done for it is, to contrive a mask for the child to wear, which will only permit him to see in a straight direction.

Spots or *specks* on the eyes are generally the effect of inflammation, and often appear after the small-pox, the measles, or violent ophthalmias. They are very difficult to cure, and often occasion total blindness*.

The *blood-shot* eye may be occasioned by a stroke, a fall, retching, vomiting, violent coughing, &c. I have frequently known it happen to children in the whooping-cough. It appears at first like a bit of scarlet, and is afterwards of a livid or blackish colour.

* These diseases may, no doubt, often be cured by first using the general means for lessening inflammation, if necessary; then giving a grain or two of calomel, or a dose of the mercurial

This diſorder generally goes off without medicine. Should it prove obſtinate, the patient may be bled, and have his eyes frequently waſhed with the vitriolic collyrium; and the body ſhould be kept open by gentle purgatives.

The *watery* or *weeping eye*, is generally occaſioned by a relaxation or weakneſs of the glandular parts of that organ. Theſe may be braced and ſtrengthened by bathing the eye with brandy and water, Hungary water, roſe-water with white vitriol diſſolved in it, &c. Medicines which make a revulſion are likewiſe proper; as mild purgatives, perpetual bliſters on the neck, bathing the feet frequently in lukewarm water, &c.

When this diſeaſe proceeds from an obſtruction of the lachrymal duct, or natural paſſage of the tears, it is called a *fiſtula lachrymalis*, and can only be cured by a ſurgical operation; though it may be greatly relieved by continual bliſters or iſſues, and avoiding the cauſes of irritation and inflammation.

OF THE EAR.

The functions of the ear may be injured by wounds, ulcers, or any thing that hurts its fabric. The hearing may likewiſe be hurt by exceſſive noiſe; violent colds in the head; fevers; hard wax, or other ſubſtances ſticking in the cavity of the ear; too great a degree of moiſture or dryneſs of the ear. Deafneſs is very often the effect of old age, and is incident to moſt people in the decline of life. Sometimes it is owing to an original fault in the ſtructure

powder daily, for ſome weeks, or months, diſcontinuing it if the mouth ſhould become ſore; bliſters muſt at the ſame time be kept to the back of the neck, to the arms, or behind the ears; and the Peruvian bark uſed in the latter part of the treatment. The idea of cutting off or deſtroying the ſpeck is a very dangerous one.

or

or formation of the ear itſelf. When this is the caſe, in admits of no cure; and the unhappy perſon not only continues deaf, but generally likewiſe dumb, for life*.

When deafneſs is the effect of wounds or ulcers of the ears, or of old age, it is not eaſily removed. When it proceeds from cold of the head, the patient muſt be careful to keep his head warm, eſpecially in the night; he ſhould likewiſe take ſome gentle purges and keep his feet warm, and bathe them frequently in lukewarm water at bed-time. When deafneſs is the effect of a fever, it generally

* Though thoſe who have the misfortune to be born deaf are generally ſuffered to continue dumb, and conſequently are in a great meaſure loſt to ſociety, yet nothing is more certain than that ſuch perſons may be taught not only to read and write, but alſo to ſpeak and to underſtand what others ſay to them. Teaching the dumb to ſpeak will appear paradoxical to thoſe who do not conſider that the formation of ſounds is merely mechanical, and may be taught without the aſſiſtance of the ear. This is not only capable of demonſtration, but is actually reduced to practice by the ingenious Mr Thomas Braidwood of Edinburgh. This gentleman has, by the mere force of genius and application, brought the teaching of dumb perſons to ſuch a degree of perfection, that his ſcholars are generally more forward in their education than thoſe of the ſame age who enjoy all their faculties. They not only read and write with the utmoſt readineſs, but likewiſe *ſpeak*, and are capable of holding converſation with any perſon in the light. What a pity that any of the human ſpecies ſhould remain in a ſtate of idiotiſm, who are capable of being rendered as uſeful and intelligent as others! We mention this not only from humanity to thoſe who have the misfortune to be born deaf, but alſo in juſtice to Mr Braidwood, whoſe ſucceſs has far exceeded all former attempts in this way; and indeed it exceeds imagination itſelf ſo far, that no perſon who has not ſeen and examined his pupils, can believe what they are capable of. As this gentleman, however willing, is only able to teach a few, and as the far greater part of thoſe who are born deaf cannot afford to attend him, it would be an act of great humanity, as well as of public utility, to erect an academy for their benefit.

goes off after the patient recovers. If it proceeds from dry wax ſticking in the ears, it may be ſoftened by dropping oil into them; afterwards they muſt be ſyringed with warm milk and water.

If deafneſs proceeds from dryneſs of the ears, which may be known by looking into them, half an ounce of the oil of ſweet almonds, and the ſame quantity of liquid opodeldoch, or tincture of aſafœtida, may be mixed together, and a few drops of it put into the ear every night at bed-time, ſtopping them afterwards with a little wool or cotton. Some, inſtead of oil, put a ſmall ſlice of the fat of bacon into each ear, which is ſaid to anſwer the purpoſe very well. When the ears abound with moiſture, it may be drained off by an iſſue or ſeton, which ſhould be made as near the affected parts as poſſible.

Some, for the cure of deafneſs, recommend to be dropped into the ear equal parts of Hungary-water and ſpirits of lavender. Etmuller extols amber and muſk; and Brookes ſays, he has often known hardneſs of hearing cured by putting a grain or two of muſk into the ear with cotton-wool. But theſe and other applications muſt be varied according to the cauſe of the diſorder.

Though ſuch applications may ſometimes be of ſervice, yet they much oftener fail, and frequently they do hurt. Neither the eyes nor ears ought to be tampered with; they are tender organs, and require a very delicate touch. For this reaſon, what we would chiefly recommend in deafneſs, is, to keep the head warm. From whatever cauſe the diſorder proceeds, this is always proper; and I have known more benefit from it alone, in the moſt obſtinate caſes of deafneſs, than from all the medicines I ever uſed.

OF

OF THE TASTE AND SMELL.

Though theſe ſenſes are not of ſo great importance to man in a ſtate of ſociety, as the ſight and hearing; yet, as the loſs of them is attended with inconveniency, they deſerve our notice. They are ſeldom to be reſtored when loſt; which ought to make us very attentive to their preſervation, by carefully avoiding whatever may in the leaſt prove injurious to them. As there is a very great affinity between the organs of taſting and ſmelling, whatever hurts the one generally affects the other.

Luxury is highly injurious to theſe organs. When the noſe and palate are frequently ſtimulated by fragrant and poignant diſhes, they ſoon loſe the power of diſtinguiſhing taſtes and odours with any degree of nicety. Man, in a ſtate of nature, may perhaps have theſe faculties as acute as any other animal.

The ſenſe of ſmelling may be diminiſhed or deſtroyed by diſeaſes; as, the moiſture, dryneſs, inflammation or ſuppuration of that membrane which lines the inſide of the noſe, commonly called the olfactory membrane; the compreſſion of the nerves which ſupply this membrane, or ſome fault in the brain itſelf at their origin. A defect or too great a degree of ſolidity, of the ſmall ſpungy bones of the upper jaw, the caverns of the forehead, &c. may likewiſe impair the ſenſe of ſmelling. It may alſo be injured by a collection of fœtid matter in thoſe caverns, which keeps conſtantly exhaling from them. Few things are more hurtful to the ſenſe of ſmelling than taking great quantities of ſnuff.

When the noſe abounds with moiſture, after gentle evacuations, ſuch things as tend to take off irritation, and coagulate the thin ſharp ſerum, may be applied; as the oil of aniſe mixed with fine flour; camphire

diſſolved in oil of almonds, &c. The vapours of amber, frankincenſe, gum-maſtic, and benjamin, may likewiſe be received into the noſe and mouth.

For moiſtening the mucus when it is too dry, ſome recommend ſnuff made of the leaves of marjoram, mixed with the oil of amber, marjoram and aniſeed; or a ſternutatory of calcined white vitriol; twelve grains of which may be mixed with two ounces of marjoram-water, and filtrated. The ſteam or vapor of vinegar upon hot iron received up the noſtrils is likewiſe of uſe for ſoftening the mucus, opening obſtructions, &c.

If there is an ulcer in the noſe it ought to be dreſſed with ſome emollient ointment, to which, if the pain be very great, a little laudanum may be added. If it be a venereal ulcer, it is not to be cured without mercury. In that caſe the ſolution of the corroſive ſublimate in water may be taken. The ulcer ought likewiſe to be waſhed with it; and the fumes of cinnabar may be received up the noſtrils.

If there be reaſon to ſuſpect that the nerves which ſupply the organs of ſmelling are inert, or want ſtimulating volatile ſalts, ſtrong ſnuffs, and other things which occaſion ſneezing, may be applied to the noſe. The forehead may likewiſe be anointed with balſam of Peru, to which may be added a little of the oil of amber.

The *taſte* may be diminiſhed by cruſts, filth, mucus, aphthæ, pellicles, warts, &c. covering the tongue: it may be depraved by a fault of the ſaliva, which, being diſcharged into the mouth, gives the ſame ſenſation as if the food which the perſon takes had really a bad taſte; or it may be entirely deſtroyed by injuries done to the nerves of the tongue and palate. Few things prove more hurtful either to the ſenſe of taſting or ſmelling than obſtinate colds, eſpecially thoſe which affect the head.

When

When the taſte is diminiſhed by filth, mucus, &c. the tongue ought to be ſcraped and frequently waſhed with a mixture of water, vinegar, and honey, or ſome other detergent. When the ſaliva is vitiated, which ſeldom happens unleſs in fevers or other diſeaſes, the curing of the diſorder is the cure of this ſymptom. To relieve it however in the mean time, the following things may be of uſe; if there be a bitter taſte, it may be taken away by vomits, purges, and other things which evacuate bile. What is called a nidorous taſte, ariſing from putrid humors, is corrected by the juice of citrons, oranges, and other acids. A ſalt taſte is cured by plentiful dilution with watery liquors. An acid taſte is deſtroyed by abſorbents, and alkaline ſalts, as powder of oyſter-ſhells, ſalt of wormwood, &c.

When the ſenſibility of the nerves which ſupply the organs of taſte is diminiſhed, the chewing of horſe-radiſh, or other ſtimulating ſubſtances, will help to recover it.

OF THE TOUCH.

The ſenſe of touching may be hurt by any thing that obſtructs the nervous influence, or prevents its being regularly conveyed to the organs of touching; as preſſure, extreme cold, &c. It may likewiſe be hurt by too great a degree of ſenſibility, when the nerve is not ſufficiently covered by the cuticle or ſcarf-ſkin, or where there is too great a tenſion of it or it is too delicate. Whatever diſorders the functions of the brain and nerves, hurts the ſenſe of touching. Hence it appears to proceed from the ſame general cauſes as palſy and apoplexy, and requires nearly the ſame method of treatment.

In a *ſtupor*, or defect of touching, which ariſes from an obſtruction of the cutaneous nerves, the patient muſt firſt be purged; afterwards ſuch medicines as excite

excite the action of the nerves, or ſtimulate the ſyſtem, may be uſed. For this purpoſe, the ſpirit of harts-horn, horſe-radiſh, &c. may be taken inwardly; the diſordered parts, at the ſame time, may be frequently rubbed with freſh nettles, or ſpirit of *ſal ammoniac*. Bliſtering-plaſters and ſinapiſms applied to the parts will likewiſe be of uſe, as alſo warm bathing, eſpecially in the natural hot baths.

CHAP. XLVI.

Of a Schirrus and Cancer.

A SCHIRRUS is an hard indolent tumor ſeated in ſome of the glands; as the breaſts, the arm-pits, &c. If the tumor becomes large, unequal, of a livid, blackiſh, or leaden colour, and is attended with violent pain, it gets the name of an *occult cancer*. When the ſkin is broken, and a *ſanies* or ichorous matter of an abominable fœtid ſmell is diſcharged from the ſore, it is called an open or ulcerated cancer. Perſons after the age of forty-five, particularly women, and thoſe who lead an indolent ſedentary life, are moſt ſubject to this diſeaſe.

CAUSES.—This diſeaſe is often owing to ſuppreſſed evacuations; hence it proves ſo frequently fatal to women of a groſs habit, about the time when the menſtrual flux ceaſes. It may likewiſe be occaſioned by exceſſive fear, grief, anger, religious melancholy, or any of the depreſſing paſſions. Hence the unfortunate, the choleric, and thoſe perſons who devote themſelves to a religious life in convents or monaſteries, are often afflicted with it. It may alſo be

be occaſioned by the long continued uſe of food that is too hard of digeſtion, or of an acrid nature; indolence; cold; blows; friction; preſſure; or the like. Women often ſuffer from the laſt of theſe by means of their ſtays, which ſqueeze and compreſs their breaſt ſo as to occaſion great miſchief. Sometimes the diſeaſe is owing to an hereditary diſpoſition.

SYMPTOMS.—This diſorder ſeems often very trifling at the beginning. A hard tumor about the ſize of a hazle-nut, or perhaps ſmaller, is generally the firſt ſymptom. This will often continue for a long time without ſeeming to increaſe, or giving the patient great uneaſineſs; but if the conſtitution be hurt, or the tumor irritated by preſſure, or improper treatment of any kind, it begins to extend itſelf towards the neighbouring parts by puſhing out a kind of roots or limbs. It then gets the name of *cancer*, from a fancied reſemblance between theſe limbs and the claws of a crab. The colour of the ſkin begins to change, which is firſt red, afterwards purple, then bluiſh, livid, and at laſt black. The patient complains of heat, with a burning, gnawing, ſhooting pain. The tumor is very hard, rough, and unequal, with a protuberance, or riſing in the middle; its ſize increaſes daily, and the neighbouring veins become thick, knotty, and of a blackiſh colour.

The ſkin at length gives way, and a thin ſharp ichor begins to flow, which corrodes the neighbouring parts till it forms a large unſightly ulcer. More occult cancers ariſe, and communicate with the neighbouring glands. The pain and ſtench become intolerable; the appetite fails; the ſtrength is exhauſted by a continual hectic fever; at laſt, a violent hæmorrhage, or diſcharge of blood, from ſome part of the body, with faintings, or convulſion fits, generally put an end to the miſerable patient's life.

REGIMEN

REGIMEN.—The diet ought to be light, but nourifhing. All ftrong liquors, and high-feafoned or falt proviſions, are to be avoided. The patient may take as much exercife as he can eafily bear. All kinds of external injury are carefully to be guarded againſt, particularly of the affected part, which ought to be defended from all preſſure, and even from the external air, by covering it with fur, or ſoft flannel.

MEDICINE.—This is one of thoſe diſeaſes for which no certain remedy is yet known. Its progreſs however may ſometimes be retarded, and ſome of its moſt diſagreeable ſymptoms mitigated, by proper applications. One misfortune attending the diſeaſe is, that the unhappy patient often conceals it too long. Were proper means uſed in due time, a cancer might often be cured; but after the diſorder has arrived at a certain height, it too generally ſets all medicine at defiance.

When a ſchirrous tumor is firſt diſcovered, the patient ought to obſerve a proper regimen, and to take twice or thrice a-week a doſe of the common purging mercurial pill. Some blood may alſo be let, and leeches daily applied to the part for one or two weeks; or a few ounces of blood taken every day or two for ſome time by cupping as near the tumor as poſſible; and the part affected may be kept warm with fur or flannel. The food muſt be light, and a pint of the decoction of woods or ſarſaparilla may be drank daily.

Should the tumor, however, not yield to this treatment, but, on the contrary, become larger and harder, it will be proper to extirpate it, either by the knife or cauſtic. Indeed, whenever this can be done with ſafety, the ſooner it is done the better. It can anſwer no purpoſe to extirpate a cancer after the conſtitution is ruined, or the whole maſs of humors corrupted by it. This, however, is the common

mon way, which makes the operation ſo ſeldom ſucceed. Few people will ſubmit to the extirpation till death ſtares them in the face; whereas, if it were done early, the patient's life would not be endangered by the operation, and it would generally prove a radical cure.

When the cancer is ſo ſituated that it cannot be cut off, or if the patient will not ſubmit to the operation, ſuch medicines as will mitigate or relieve the moſt urgent ſymptoms may be uſed.

The medicine moſt in repute at preſent for this diſeaſe is hemlock. Dr. Stork, phyſician at Vienna, has recommended the extract of this plant as very efficacious in cancers of every kind. The Doctor ſays, he has given ſome hundred weights of it without ever hurting any body, and often with manifeſt advantage. He adviſes the patient, however, to begin with very ſmall doſes, as two or three grains, and to increaſe the doſe gradually till ſome good effect be perceived, and there to reſt without further increaſe. From two or three grains at firſt, the Doctor ſays he has increaſed the doſe to two, three, or four drachms a-day, and finds that ſuch doſes may be continued for ſeveral weeks without any bad conſequences.

The regimen which the Doctor recommends during the uſe of the medicine, is to avoid farinaceous ſubſtances not fermented, and too acrid aromatics. He ſays, good wine will not be hurtful to thoſe who are accuſtomed to it, nor a moderate uſe of acids; and adds, that the patient ſhould live in a pure free air, and keep his mind as quiet and cheerful as poſſible.

The Doctor does not pretend to fix the time in which a cancer may be reſolved by the uſe of hemlock, but ſays he has given it for above two years in large doſes without any apparent benefit; nevertheleſs

thelefs the patient has been cured by perfifting in the ufe of it for half a year longer. This is at leaft encouragement to give it a fair trial. Though we are far from thinking the hemlock merits thofe extravagant encomiums which the Doctor has beftowed upon it, yet, in a difeafe which has fo long baffled the boafted powers of medicine, we think it ought always to be tried.

The powder of hemlock is by fome preferred to the extract. They are both made of the frefh leaves, and may be ufed nearly in the fame manner. Dr. Nicholfon of Berwick fays, he gradually increafed the dofe of the powder from a few grains to half a drachm, and gave near four drachms of it in the day with remarkable good effects. The hemlock may alfo be ufed externally either as a poultice or fomentation. The fore may likewife be kept clean by injecting daily a ftrong decoction of the tops and leaves into it.

Few things contribute more to the healing of foul fordid ulcers of any kind, than keeping them thoroughly clean. This ought never to be neglected. The beft application for this purpofe, feems to be the carrot poultice. The root of the common carrot may be grated, and moiftened with as much water as will bring it to the conliftence of a poultice or cataplafm. This muft be applied to the fore, and renewed twice a-day. It generally cleans the fore, eafes the pain, and takes away the difagreeable fmell, which are objects of no fmall importance in fuch a dreadful diforder*.

Wort, or an infufion of malt, has been recommended not only as a proper drink, but as a powerful medicine in this difeafe. It muft be frequently made frefh, and the patient may take it at pleafure.

* London Medical Eflays.

Two

Two, three, or even four pints of it may be drank every day for a conſiderable time. No benefit can be expected from any medicine in this diſeaſe, unleſs it be perſiſted in for a long time. It is of too obſtinate a nature to be ſoon removed; and, when it admits of a cure at all, it muſt be brought about by inducing an almoſt total change of the habit, which muſt always be a work of time. Setons or iſſues, applied near the cancer, have ſometimes good effects*.

When all other medicines fail, recourſe muſt be had to opium, as a kind of ſolace. This will not, indeed, cure the diſeaſe, but it will eaſe the patient's agony, and render life more tolerable while it continues.

To avoid this dreadful diſorder, people ought to uſe wholeſome food; to take ſufficient exerciſe in the open air; to be as eaſy and cheerful as poſſible; and carefully to guard againſt all blows, bruiſes, and every kind of preſſure upon the breaſts or other glandular parts†.

* In a cancer which had ſet all medicines, and even ſurgery, at defiance, I lately ſaw remarkable effects from an obſtinate perſeverance in a courſe of antiſeptics. I ordered the deep ulcers to be waſhed to the bottom by means of a ſyringe, twice or thrice a day, either with an infuſion of the bark, or a decoction of carrot, and that the patient ſhould take four or five times a-day, a glaſs of good wine, with half a drachm of the beſt powdered bark in it. The ſores, after being waſhed, were likewiſe ſprinkled with the ſame powder. When the patient began this courſe, her death was daily expected. She continued it for above two years, with manifeſt advantage; but, being told by an eminent ſurgeon, that the bark would not cure a cancer, and that the ſores ought not to be waſhed, ſhe diſcontinued the practice, and died in a few weeks. This courſe was not expected to cure the cancer, but to prolong the patient's life, which it evidently did almoſt to a miracle.

† As hemlock is the principal medicine recommended in this diſeaſe, we would have given ſome directions for the gathering and preparing of that plant; but as its different preparations are

CHAP. XLVII.

Of Poiſons.

EVERY perſon ought, in ſome meaſure, to be acquainted with the nature and cure of poiſons. They are generally taken unawares, and their effects are often ſo ſudden and violent, as not to admit of delay, or allow time to procure the aſſiſtance of phyſicians. Happily, indeed, no great degree of medical knowledge is here neceſſary; the remedies for moſt poiſons being generally at hand, or eaſily obtained, and nothing but common prudence needful in the application of them.

The vulgar notion, that every poiſon is cured by ſome counter-poiſon, as a ſpecific, has done much hurt. People believe they can do nothing for the patient, unleſs they know the particular antidote to that kind of poiſon which he has taken. Whereas, the cure of all poiſons taken into the ſtomach, without exception, depends chiefly on diſcharging them as ſoon as poſſible.

There is no caſe, wherein the indications of cure are more obvious. Poiſon is ſeldom long in the ſtomach before it occaſions ſickneſs, with an inclination to vomit. This ſhews plainly what ought to be done. Indeed, common ſenſe dictates to every one, that, if any thing has been taken into the ſtomach which endangers life, it ought immediately to be diſcharged, if poſſible. Were this duly regarded, the danger ariſing from poiſons might generally be

are now kept in ſhops, we think it much ſafer for people to get them there, with proper directions for uſing them.

avoided. The method of prevention is obvious, and the means are in the hands of every one.

We ſhall not take up the reader's time with a detail of the ridiculous notions which have prevailed among ignorant people, in different ages, with regard to poiſons; neither ſhall we mention the boaſted antidotes, which have been recommended either for preventing or obviating their effects; but ſhall content ourſelves with pointing out the poiſons moſt common in this country, and the means of avoiding their dangerous conſequences.

Poiſons either belong to the mineral, the vegetable, or the animal kingdom.

Mineral poiſons are commonly of an acrid or corroſive quality; as arſenic, cobalt, the corroſive ſublimate of mercury, &c.

Thoſe of the vegetable kind, are generally of a narcotic or ſtupefactive quality; as poppy, hemlock, henbane, berries of the deadly night-ſhade, ſtramonium, palma chriſti, &c.

Poiſonous animals communicate their infection either by the bite or ſting. This poiſon is very different from the former, and only produces its effects when received into the body by a wound.

MINERAL POISONS.——Arſenic is the moſt common of this claſs; and, as the whole of them are pretty ſimilar, both in their effects and method of cure, what is ſaid with reſpect to it will be applicable to every other ſpecies of corroſive poiſon.

When a perſon has taken arſenic, he ſoon perceives a burning heat, and a violent pricking pain in his ſtomach and bowels, with an intolerable thirſt, and an inclination to vomit. The tongue and throat feel rough and dry; and, if proper means be not ſoon adminiſtered, the patient is ſeized with great anxiety, hiccupping, faintings, and coldneſs of the extremities. To theſe ſucceed black vomitings, fœtid

ſtools, with a mortification of the ſtomach and inteſtines, which are the immediate forerunners of death.

On the firſt appearance of theſe ſymptoms, the patient ſhould drink large quantities of new milk and ſallad oil, till he vomits; or, he may drink warm water mixed with oil. Fat broths are likewiſe proper, provided they can be got ready in time. Where no oil is to be had, freſh butter may be melted and mixed with the milk or water. Theſe things are to be drank as long as the inclination to vomit continues. Some have drank eight or ten quarts before the vomiting ceaſed; and it is never ſafe to leave off drinking, while one particle of the poiſon remains in the ſtomach.

Theſe oily or fat ſubſtances not only provoke vomiting, but likewiſe blunt the acrimony of the poiſon, and prevent its wounding the bowels; but if they ſhould not make the perſon vomit, half a drachm or two ſcruples of the powder of ipecacuanha muſt be given, or a few ſpoonfuls of the oxymel or vinegar of ſquills, may be mixed with the water which he drinks. Vomiting may likewiſe be excited by tickling the inſide of the throat with a feather. Should theſe methods, however, fail, half a drachm of white vitriol, or five or ſix grains of emetic tartar, or two ſcruples of powdered ipecacuanha, muſt be adminiſtered.

If tormenting pains are felt in the lower belly, and there is reaſon to fear that the poiſon has got down to the inteſtines, clyſters of milk and oil muſt be very frequently thrown up; and the patient muſt drink emollient decoctions of barley, oat-meal, marſhmallows, and ſuch like. He muſt likewiſe take an infuſion of ſenna and manna, a ſolution of Glauber's ſalts, or ſome other purgative. If corroſive ſublimate or ſugar of lead have been taken, the patient ſhould drink frequently of a ſolution of ſalt of tartar in water.

After

After the poiſon has been evacuated, the patient ought, for ſome time, to live upon ſuch things as are of a healing and cooling quality; to abſtain from fleſh and all ſtrong liquors, and to live upon milk, broth, gruel, light puddings, and other ſpoon meats of eaſy digeſtion. His drinks ſhould be barley-water, flax-ſeed-tea, or infuſions of any of the mild mucilaginous vegetables.

VEGETABLE POISONS, beſides heat and pain of the ſtomach, commonly occaſion ſome degree of giddineſs, and often a kind of ſtupidity or folly. Perſons who have taken theſe poiſons muſt be treated in the ſame manner as for the mineral or corroſive.

Though the vegetable poiſons, when allowed to remain in the ſtomach, often prove fatal; yet the danger is generally over as ſoon as they are diſcharged. Not being of ſuch a cauſtic or corroſive nature, they are leſs apt to wound or inflame the bowels than mineral ſubſtances: no time, however, ought to be loſt in having them diſcharged.

Opium, being frequently taken by miſtake, merits particular attention. It is uſed as a medicine, both in a ſolid and liquid form, which latter commonly goes by the name of laudanum. It is, indeed, a valuable medicine, when taken in proper quantity; but, as an over-doſe proves a ſtrong poiſon, we ſhall point out its common effects, together with the method of cure.

An over-doſe of opium generally occaſions great drowſineſs, with ſtupor and other apoplectic ſymptoms. Sometimes the perſon has ſo great an inclination to ſleep, that it is almoſt impoſſible to keep him awake. Every method muſt, however, be tried for this purpoſe. He ſhould be toſſed, ſhaked, and moved about. Sharp bliſtering-plaſters ſhould be applied to his legs or arms, and ſtimulating medicines, as ſalts of hartſhorn, &c. held under his

noſe. It will alſo be proper to let blood if the pulſe requires it. At the ſame time every method muſt be taken to make him diſcharge the poiſon. This may be done in the manner directed above, *viz.* by the uſe of ſtrong vomits, drinking plenty of warm water with oil, large draughts of vinegar, or lime-juice and water.

Mead, beſides vomits, in this caſe, recommends acid medicines with lixivial ſalts. He ſays, that he has often given ſalt of wormwood mixed with juice of lemon in repeated doſes with great ſucceſs.

If the body ſhould remain weak and languid after the poiſon has been diſcharged, nouriſhing diet and cordials will be proper; but when there is reaſon to fear that the ſtomach or bowels are inflamed, the greateſt circumſpection is neceſſary, both with regard to food and medicine.

OF THE BITES OF POISONOUS ANIMALS.

We ſhall begin with the bite of a mad dog, as it is both the moſt common and dangerous animal-poiſon in this country.

The creatures naturally liable to contract this diſeaſe are, as far as we yet know, all of the dog kind, *viz.* foxes, wolves, and dogs. Hence it is called the *rabies canina*, or dog madneſs. It ſo ſeldom happens that any perſon is bit by the two firſt, that they ſcarce deſerve to be taken notice of. If ſuch a thing ſhould happen, the method of treatment is preciſely the ſame as for the bite of a mad dog.

The ſymptoms of madneſs in a dog are as follow: At firſt he looks dull, ſhews an averſion to food and company: he does not bark as uſual, but ſeems to murmur, is peeviſh, and apt to bite ſtrangers: his ears and tail droop more than uſual, and he appears drowſy: afterwards he begins to loll out his tongue, and froth at the mouth, his eyes ſeeming heavy

heavy and watery: he now, if not confined, takes off, runs panting along with a kind of dejected air, and endeavours to bite every one he meets. Other dogs are said to fly from him. Some think this a certain sign of madness, supposing that they know him by the smell; but it is not to be depended on. If he escapes being killed, he seldom runs above two or three days, till he dies exhausted with heat, hunger, and fatigue.

This disease is most frequent after long, dry, hot seasons; and such dogs as live upon putrid, stinking carrion, without having enough of fresh water, are most liable to it.

When any person has been bit by a dog, the strictest inquiry ought to be made whether the animal was really mad. Many disagreeable consequences arise from neglecting to ascertain this point. Some people have lived in continual anxiety for many years, because they had been bit by a dog which they believed to be mad; but, as he had been killed on the spot, it was impossible to ascertain the fact. This should induce us, instead of killing the dog the moment he has bit any person, to do all in our power to keep him alive, at least till we can be certain whether he be mad or not.

Many circumstances may contribute to make people imagine a dog mad. He loses his master, runs about in quest of him, is set upon by other dogs, and perhaps by men. The creature, thus frightened, beat, and abused, looks wild, and lolls out his tongue as he runs along. Immediately a croud is after him; while he, finding himself closely pursued, and taking every one he meets for an enemy, naturally attempts to bite in self-defence. He soon gets knocked on the head, and it passes currently that he was mad, as it is then impossible to prove the contrary.

This being the true hiſtory of, by far, the greater part of thoſe dogs which paſs for mad, is it any wonder that numberleſs whimſical medicines have been extolled for preventing the effects of their bite? This readily accounts for the great variety of infallible remedies for the bite of a mad dog, which are to be met with in almoſt every family. Though not one in a thouſand has any claim to merit, yet they are all ſupported by numberleſs vouchers. No wonder that imaginary diſeaſes ſhould be cured by imaginary remedies. In this way, credulous people firſt impoſe upon themſelves, and then deceive others. The ſame medicine which was ſuppoſed to prevent the effects of the bite, when the dog was not mad, is recommended to a perſon who has had the misfortune to be bit by a dog that was really mad. He takes it, truſts to it, and is undone.

To theſe miſtakes we muſt impute the frequent ill ſucceſs of the medicines uſed for preventing the effects of the bite of a mad dog. It is not owing ſo much to a defect in medicine, as to wrong applications. I am perſuaded, if proper medicines were adminiſtered immediately after the bite is received, and continued for a ſufficient length of time, we ſhould not loſe one in a thouſand of thoſe who have the misfortune to be bit by a mad dog.

This poiſon is generally communicated by a wound, which, nevertheleſs, heals as ſoon as a common wound: but afterwards it begins to feel painful, and as the pain ſpreads towards the neighbouring parts, the perſon becomes heavy and liſtleſs. His ſleep is unquiet, with frightful dreams; he ſighs, looks dull, and loves ſolitude. Theſe are the forerunners, or rather the firſt ſymptoms of that dreadful diſeaſe occaſioned by the bite of a mad dog. But as we do not propoſe to treat fully of the diſeaſe itſelf, but to point out the method of preventing

venting it, we ſhall not take up time in ſhewing its progreſs from the firſt invaſion to its commonly fatal end.

The common notion, that this poiſon may lie in the body for many years, and afterwards prove fatal, is both hurtful and ridiculous. It muſt render ſuch perſons as have had the misfortune to be bit very unhappy, and can have no good effects. If the perſon takes proper medicines for forty days after the time of his being bit, and feels no ſymptoms of the diſeaſe, there is reaſon to believe him out of danger.

The medicines recommended for preventing the effects of the bite of a mad dog, are chiefly ſuch as promote the different ſecretions, and antiſpaſmodics.

Dr Mead recommends a preventative medicine, which, he ſays, he never knew fail, though in the ſpace of thirty years he had uſed it a thouſand times.

The Doctor's preſcription is as follows:

"Take aſh-coloured ground liver-wort, cleaned, dried, and powdered, half an ounce; of black pepper powdered, a quarter of an ounce. Mix theſe well together, and divide the powder into four doſes; one of which muſt be taken every morning, faſting, for four mornings ſucceſſively, in half a pint of cows milk warm.

"After theſe four doſes are taken, the patient muſt go into the cold bath, or a cold ſpring or river, every morning faſting, for a month; he muſt be dipped all over, but not ſtay in (with his head above water) longer than half a minute, if the water be very cold. After this he muſt go in three times a-week for a fortnight longer.

"The perſon muſt be bled before he begins to uſe the medicine*."

* Though we give this preſcription on the credit of Dr. Mead, yet we would not adviſe any perſon, who has reaſon to believe that he has been bit by a dog which was really mad,

We ſhall next mention the famous Eaſt India ſpecific, as it is called. This medicine is compoſed of cinnabar and muſk. It is eſteemed a great antiſpaſmodic; and, by many, extolled as an infallible remedy for preventing the effects of the bite of a mad dog.

"Take native and factitious cinnabar, of each twenty-four grains, muſk ſixteen grains. Let theſe be made into a fine powder, and taken in a glaſs of arrack or brandy."

This ſingle doſe is ſaid to ſecure the perſon for thirty days, at the end of which it muſt be repeated; but if he has any ſymptoms of the diſeaſe, it muſt be repeated in three hours.

The following is likewiſe reckoned a good antiſpaſmodic medicine:

"Take of Virginian ſnake-root in powder, half a drachm, gum aſafœtida twelve grains, gum camphire ſeven grains; make theſe into a bolus with a little ſyrup of ſaffron."

Camphire may alſo be given in the following manner:

"Take purified nitre half an ounce, Virginian ſnake-root in powder two drachms, camphire one drachm; rub them together in a mortar, and divide the whole into ten doſes."

Mercury is likewiſe recommended as of great efficacy, both in the prevention and cure of this kind of madneſs. When uſed as a preventative, it will be ſufficient to rub daily a drachm of the ointment into the parts about the wound.

Vinegar is likewiſe of conſiderable ſervice, and ſhould be taken freely, either in the patient's food or drink.

to truſt to it alone. Mead was an able phyſician, but he ſeems to have been no great philoſopher, and was ſometimes the dupe of his own credulity.

Theſe

These are the principal medicines recommended for preventing the effects of the bite of a mad dog. We would not, however, advise people to trust to any one of them; but from a proper combination of their different powers, there is the greatest reason to hope for success.

The great error in the use of these medicines lies in not taking them for a sufficient length of time. They are used more like charms, than medicines intended to produce any change in the body. To this, and not to the insufficiency of the medicines, we must impute their frequent want of success.

Dr Mead says, that the virtue of his medicine consists in promoting urine. But how a poison should be expelled by urine, with only three or four doses of any medicine, however powerful, it is not easy to conceive. More time is certainly necessary, even though the medicine were more powerful than that which the Doctor prescribes.

The East India specific is still more exceptionable on this account.

As these and most other medicines, taken singly, have frequently been found to fail, we shall recommend the following course:

If a person be bit on a fleshy part, where there is no hazard of hurting any large blood-vessel, the parts adjacent to the wound may be cut away, or apply a caustic directly on the part.

The wound may be dressed with salt and water, or a pickle made of vinegar and salt, and afterwards dressed twice a-day, with red precipitate of mercury*.

The patient should begin to use either Dr Mead's medicine, or some of the others mentioned above. If he takes Mead's medicine, he may use it as the Doctor

* In every case of wound from the bite of a dog, there is no application equal to red precipitate, in order to produce good matter.

directs,

directs, for four days successively. Let him then omit it for two or three days, and again repeat the same number of doses as before.

During this course he must rub into the parts about the wound, daily, one drachm of the mercurial ointment. This may be done for ten or twelve days at least.

When this course is over, he may take a purge or two, and wait a few day days till the effect of the mercury be gone off. He must then begin to use the cold bath, into which he may go every morning for five or six weeks. If he should feel cold and chilly for a long time after coming out of the cold bath, it will be better to use a tepid one, or to have the water a little warmed.

In the mean time, we would advise him not to leave off all internal medicines, but to take either one of the boluses of snake-root, asafœtida, and camphire; or one of the powders of nitre, camphire, and snake-root, twice a-day. These may be used during the whole time he is bathing.

During the use of the mercurial ointment, the patient must keep within doors, and take nothing cold.

A proper regimen must be observed throughout the whole course. The patient should abstain from flesh, and all salted and high seasoned provisions. He must avoid strong liquors, and live mostly upon a light and rather spare diet. His mind should be kept as easy and cheerful as possible, and all excessive heat and violent passions avoided with the utmost care.

I have never seen this course of medicine, with proper regimen, fail to prevent the hydrophobia, and cannot help again observing, that the want of success must generally be owing either to the application of improper medicines, or not using proper ones for a sufficient length of time.

Mankind

Mankind are extremely fond of every thing that promiſes a ſudden or miraculous cure. By truſting to theſe they often loſe their lives, when a regular courſe of medicine would have rendered them abſolutely ſafe. This holds remarkably in the preſent caſe. Numbers of people, for example, believe if they or their cattle were once dipped in the ſea, it is ſufficient; as if the ſalt water were a charm againſt the effects of the bite. This, and ſuch like whims, have proved fatal to many.

It is a common notion, if a perſon be bit by a dog which is not mad, that, if he ſhould go mad afterwards, the perſon would be affected with the diſorder at the ſame time; but this notion is too ridiculous to deſerve a ſerious conſideration. It is a good rule, however, to avoid dogs as much as poſſible.

Though we do not mean to treat fully of the cure of the hydrophobia, yet we are far from reckoning it incurable. The notion that this diſeaſe could not be cured, has been productive of the moſt horrid conſequences. It was uſual either to abandon the unhappy perſons, as ſoon as they were ſeized with the diſeaſe, to their fate, to bleed them to death, or to ſuffocate them between matreſſes or feather beds &c. This conduct certainly deſerved the ſevereſt puniſhment! We hope, for the honor of human nature, it will never again be heard of.

I have never had an opportunity of treating this diſeaſe, and therefore can ſay nothing of it from my own experience; but the learned Dr. Tiſſot ſays, it may be cured in the following manner:

1. The patient muſt be bled to a conſiderable quantity; and this may be repeated twice, or thrice, or even a fourth time, if circumſtances require it.

2. The patient ſhould be put, if poſſible, into a warm bath; and this ſhould be uſed twice a-day.

3. He

3. He ſhould every day receive two, or even three emollient clyſters.

4. The wound, and the parts adjoining to it, ſhould be rubbed with the mercurial ointment twice a-day.

5. The whole limb which contains the wound ſhould be rubbed with oil, and be wrapped up in an oily flannel.

6. Every three hours a doſe of Cob's powder ſhould be taken in a cup of the infuſion of lime tree and elder flowers. This powder is made, by rubbing together in a mortar, to a very fine powder, of native and factitious cinnabar, each twenty-four grains; of muſk, ſixteen grains*.

7. The following bolus is to be given every night, and to be repeated in the morning, if the patient is not eaſy, waſhing it down with the infuſion mentioned above: Take one drachm of Virginian ſnake-root in powder; of camphire and aſafœtida, ten grains each; of opium, one grain; and with a ſufficient quantity of conſerve, or rob of elder, make a bolus.

8. If there be a great nauſea at the ſtomach, with a bitterneſs in the mouth, thirty-five or forty grains of ipecacuanha, in powder, may be taken for a vomit.

9. The patient's food, if he takes any, muſt be light; as panada, ſoups made of farinaceous or mealy vegetables, &c.

* The Ormſkirk medicine, as it is called, ſeems to me to conſiſt chiefly of cinnabar. Though it is ſaid to be infallible, as a preventative; yet I would not adviſe any one to truſt to it alone. Indeed it is ordered to be taken in a manner which gives it more the appearance of a charm than of a medicine. Surely if a medicine is to produce any change in the body, it muſt be taken for ſome conſiderable time and in ſufficient quantity.

10. If

10. If the patient ſhould long continue weak, and ſubject to terrors, he may take half a drachm of the Peruvian bark thrice a-day*.

The next poiſonous animal which we ſhall mention is the VIPER. The greaſe of this animal rubbed into the wound is ſaid to cure the bite. Though that is all the viper-catchers generally do when bit, we ſhould not think it ſufficient for the bite of an enraged viper. It would ſurely be more ſafe to have the wound well ſucked†, and afterwards rubbed with warm ſalad-oil. A poultice of bread and milk, ſoftened with ſalad-oil, ſhould likewiſe be applied to the wound; and the patient ought to drink freely of vinegar-whey, or water-gruel with vinegar in it, to make him ſweat. Vinegar is one of the beſt medicines which can be uſed in any kind of poiſon, and ought to be taken very liberally. If the patient be ſick, he may take a vomit. This courſe will be ſufficient to cure the bite of any of the poiſonous animals of this country.

With regard to poiſonous inſects, as the bee, the waſp, the hornet, &c. their ſtings are ſeldom attended with danger, unleſs when a perſon happens to

* It is to be lamented that the cure of this diſeaſe is ſo little underſtood. The uſe of the cauſtic at the beginning is of the greateſt importance, afterwards we ſhould treat it as we do other diſeaſes according to the general habit, either by evacuations or tonics.

† The practice of ſucking out poiſon is very ancient. There can be no danger in performing this office, as the poiſon does no harm unleſs it be taken into the body by a wound. The perſon who ſucks the wound ought, however, to waſh his mouth frequently with ſalad-oil, which will ſecure him from even the leaſt inconveniency. The *Pſylli* in Africa, and the *Marſi* in Italy, were famed for curing the bites of poiſonous animals by ſucking the wound; and we are told, that the Indians in North-America practiſe the ſame at this day.

be ſtung by a great number of them at the ſame time; in which caſe ſomething ſhould be done to abate the inflammation and ſwelling. Some, for this purpoſe, apply honey, others lay pounded parſley to the part. A mixture of vinegar and Venice treacle is likewiſe recommended: but I have always found rubbing the part with warm ſalad oil ſucceed very well. Indeed when the ſtings are ſo numerous as to endanger the patient's life, which is ſometimes the caſe, he muſt be bled, and take ſome cooling medicines, as nitre or cream of tartar, and ſhould drink plentifully of diluting liquors.

It is the happineſs of Great-Britain to have very few poiſonous animals, and thoſe which we have are by no means of the moſt virulent kind. Nine-tenths of the effects attributed to poiſon or venom in this country, are really other diſeaſes, and proceed from quite different cauſes.

OF VEGETABLE POISONS.

We cannot, however, make the ſame obſervation with regard to poiſonous vegetables. Theſe abound every where, and prove often fatal to the ignorant and unwary. This, indeed, is chiefly owing to careleſſneſs. Children ought early to be cautioned againſt eating any kind of fruit, roots, or berries which they do not know, and all poiſonous plants to which they can have acceſs, ought, as far as poſſible, to be deſtroyed. This would not be ſo difficult a taſk as ſome people imagine.

Poiſonous plants have no doubt their uſe, and they ought to be propagated in proper places; but, as they prove often deſtructive to cattle, they ſhould be rooted out of all paſture-grounds. They ought likewiſe, for the ſafety of the human ſpecies, to be deſtroyed in the neighbourhood of all towns and vil-

lages; which, by the by, are the places where they moſt commonly abound. I have ſeen the poiſonous hemlock, henbane, wolfsbane, and deadly night-ſhade, all growing within the *environs* of a ſmall town, where, though ſeveral perſons within the memory of thoſe living in it, had loſt their lives by one or other of theſe plants; yet no method, that I could hear of, had ever been taken to root them out; though this might be done at a very trifling expence.

Seldom a year paſſes but we have accounts of ſeveral perſons poiſoned by eating hemlock roots inſtead of parſnips, or ſome kind of fungus which they had gathered for muſhrooms. Theſe examples ought to put people upon their guard with reſpect to the former, and to put the latter entirely out of uſe. Muſhrooms may be a delicate diſh, but they are a dangerous one, as they are generally gathered by perſons who do not know one kind of fungus from another, and take every thing for a muſhroom which has that appearance.

We might here mention many other plants and animals of a poiſonous nature which are found in foreign countries; but, as our obſervations are chiefly intended for Great-Britain, we ſhall paſs theſe over. It may not however be amiſs to obſerve, for the benefit of ſuch of our countrymen as go to America, that an effectual remedy is now ſaid to be found for the bite of the rattle-ſnake. The preſcription is as follows: Take of the roots of plantain and horehound, in ſummer, roots and branches together, a ſufficient quantity; bruiſe them in a mortar, and ſqueeze out the juice, of which give, as ſoon as poſſible, one large ſpoonful; if the patient be ſwelled you muſt force it down his throat. This generally will cure; but, if he finds no relief in an hour after, you may give another ſpoonful, which never fails.—If the roots are dried, they muſt be moiſtened with a little

a little water. To the wound may be applied a leaf of good tobacco moiſtened with rum.

We give this upon the faith of Dr Brookes, who ſays it was the invention of a negro; for the diſcovery of which he had his freedom purchaſed, and a hundred pounds *per annum* ſettled upon him during life, by the General Aſſembly of Carolina.

It is poſſible there may be in nature ſpecific remedies for every kind of poiſon; but as we have very little faith in any of thoſe which have yet been pretended to be diſcovered, we ſhall again recommend the moſt ſtrict attention to the following rules, *viz.* That when any poiſonous ſubſtance has been taken into the ſtomach it ought, as ſoon as poſſible, to be diſcharged by vomits, clyſters, and purges; and, when poiſon has been received into the body by a wound, that it be expelled by medicines which promote the different ſecretions, eſpecially thoſe of ſweat, urine, and inſenſible perſpiration; to which may be joined antiſpaſmodics, or ſuch medicines as take off tenſion and irritation; the chief of which are opium, muſk, camphire, and aſafœtida.

CHAP. XLVIII.

Of the Venereal Diſeaſe.

IN the firſt edition of this book the venereal diſeaſe was omitted. The reaſons, however, which at that time induced me to leave it out, have upon more mature conſideration vaniſhed. Bad conſequences, no doubt, may ariſe from ignorant perſons

tampering with medicine in this diſorder; but the danger from that quarter ſeems to be more than balanced by the great and ſolid advantages, which muſt ariſe to the patient from an early knowledge of his caſe, and an attention to a plan of regimen, which, if it does not cure the diſeaſe, will be ſure to render it more mild, and leſs hurtful to the conſtitution.

It is peculiarly unfortunate for the unhappy perſons who contract this diſeaſe, that it lies under a ſort of diſgrace. This renders diſguiſe neceſſary, and makes the patient either conceal his diſorder altogether, or apply to thoſe who promiſe a ſudden and ſecret cure; but who in fact only remove the ſymptoms for a time, while they fix the diſeaſe deeper in the habit. By this means a ſlight infection, which might have been eaſily removed, is often converted into an obſtinate, and ſometimes incurable malady.

Another unfavourable circumſtance attending this diſeaſe is, that it aſſumes a variety of different ſhapes, and may with more propriety be called an aſſemblage of diſeaſes, than a ſingle one. No two diſeaſes can require a more different method of treatment than this does in its different ſtages. Hence the folly and danger of truſting to any particular noſtrum for the cure of it. Such noſtrums are however generally adminiſtered in the ſame manner to all who apply for them, without the leaſt regard to the ſtate of the diſeaſe, the conſtitution of the patient, the degree of infection, and a thouſand other circumſtances of the utmoſt importance.

Though the venereal diſeaſe is generally the fruit of unlawful embraces, yet it may be communicated to the innocent as well as the guilty. Infants, nurſes, midwives, and married women, whoſe huſbands lead diſſolute lives, are often affected with it, and frequently loſe their lives by not being aware of their danger in due time. The unhappy condition

of ſuch perſons will certainly plead our excuſe, if any excuſe be neceſſary, for endeavouring to point out the ſymptoms and cure of this too common diſeaſe.

To enumerate all its different ſymptoms, however, and to trace the diſeaſe minutely through its various ſtages, would require a much larger ſpace than falls to this part of my ſubject; I ſhall therefore confine my obſervations chiefly to circumſtances of importance, omitting ſuch as are either trifling, or which occur but ſeldom. I ſhall likewiſe paſs over the hiſtory of the diſeaſe, with the different methods of treatment which it has undergone ſince it was firſt introduced into Europe, and many other circumſtances of a ſimilar nature; all of which, though they might tend to amuſe the reader, yet could afford him little or no uſeful knowledge.

OF THE VIRULENT GONORRHŒA.

The virulent gonorrhœa is an involuntary diſcharge of infectious matter from the parts of generation in either ſex. It generally makes its appearance within eight or ten days after the infection has been received: ſometimes indeed it appears in two or three days, and at other times not before the end of four or five weeks. Previous to the diſcharge, the patient feels an itching with a ſmall degree of pain in the genitals. Afterwards a thin glairy matter begins to diſtil from the urinary paſſage, which ſtains the linen, and occaſions a ſmall degree of titillation, particularly in the time of making water; this gradually increaſing, ariſes at length to a degree of heat and pain, which are chiefly perceived about the extremity of the urinary paſſage, where a ſlight degree of redneſs and inflammation likewiſe begin to appear.

As

As the diſorder advances, the pain, heat of urine, and running, increaſe, while freſh ſymptoms daily enſue. In men the erections become painful and involuntary, and are more frequent and laſting than when natural. This ſymptom is moſt troubleſome when the patient is warm in bed. The pain which was at firſt only perceived towards the extremity, now begins to reach all up the urinary paſſage, and is moſt intenſe juſt after the patient has done making water. The running gradually grows yellow, and at length puts on the appearance of matter.

When the diſorder has arrived at its height, all the ſymptoms are more intenſe; the heat of urine is ſo great, that the patient dreads the making water; and though he feels a conſtant inclination this way, yet it is rendered with the greateſt difficulty, and often only by drops: the involuntary erections now become extremely painful and frequent; there is alſo a pain, heat, and ſenſe of fulneſs about the ſeat, and the running is plentiful and ſharp, of a brown, greeniſh, and ſometimes of a bloody colour.

By a proper treatment the violence of the ſymptoms gradually abates; the heat of urine goes off; the involuntary and painful erections, and the heat and pain about the ſeat, become eaſier; the running alſo gradually decreaſes, grows whiter and thicker, till at laſt it entirely diſappears.

By attending to theſe ſymptoms, the gonorrhœa may be generally diſtinguiſhed from any other diſeaſe. There are however ſome few diſorders for which it may be miſtaken, as an ulcer in the kidnies or bladder, the *fluor albus* or whites in women, &c. But in the former of theſe, the matter comes away only with the urine, or when the ſphincter of the bladder is open; whereas in a gonorrhœa, the diſcharge is conſtant. From the latter it is more difficult

to be diſtinguiſhed, and muſt be known chiefly from its effects, as pain, communicating the infection, &c.

REGIMEN.——When a perſon has reaſon to ſuſpect that he has caught the venereal infection, he ought moſt ſtrictly to obſerve a cooling regimen, to avoid every thing of an heating nature, as wines, ſpirituous liquors, rich ſauces, ſpiced, ſalted, high-ſeaſoned and ſmoke-dried proviſions, &c. as alſo all aromatic and ſtimulating vegetables, as onions, garlic, ſhallot, nutmeg, muſtard, cinnamon, mace, ginger, and ſuch like. His food ought chiefly to conſiſt of mild vegetables, milk, broths, light puddings, panada, gruels, &c. His drink may be barley-water, milk and water, decoctions of marſh-mallows and liquorice, flaxſeed-tea, or clear whey. Of theſe he ought to drink plentifully. Violent exerciſe of all kinds, eſpecially riding on horſeback, and venereal pleaſures, are to be avoided. The patient muſt beware of cold, and when the inflammation is violent, he ought to keep his bed.

MEDICINE.——A virulent gonorrhœa cannot always be cured ſpeedily and effectually at the ſame time. The patient ought therefore not to expect, nor the phyſician to promiſe it. It will often continue for two or three weeks, and ſometimes for five or ſix, even where the treatment has been very proper.

Sometimes indeed a ſlight infection may be carried off in a few days, by bathing the parts in warm milk and water, and injecting frequently up the urethra a little ſweet oil or linſeed-tea about the warmth of new milk. Should theſe not ſucceed in carrying off the infection, they will at leaſt have a tendency to leſſen its virulence.

To effect a cure, however, aſtringent injections will generally be found neceſſary. Theſe may be various ways prepared, but I think thoſe made with the

the white vitriol are both moſt ſafe and efficacious. They can be made ſtronger or weaker as circumſtances may require; but it is beſt to begin with the more gentle, and increaſe their power if neceſſary. I generally order a drachm of white vitriol to be diſſolved in eight or nine ounces of common or roſe-water, and an ordinary ſyringe full of it to be thrown up three or four times a-day. If this quantity does not perform a cure, it may be repeated, and the doſe increaſed*.

Whether injections be uſed or not, cooling purges are always proper in the gonorrhœa. They ought not however to be of the ſtrong or draſtic kind. Whatever raiſes a violent commotion in the body increaſes the danger, and tends to drive the diſeaſe deeper into the habit. Procuring two or three ſtools every ſecond or third day for the firſt fortnight, and the ſame number every fourth or fifth day for the ſecond, will generally be ſufficient to remove the inflammatory ſymptoms, to diminiſh the running, and to change its colour and conſiſtence. It gradually becomes more white and ropy as the virulence abates†.

* Although it is now very common to cure the gonorrhœa by aſtringent injections, there are ſtill many practitioners who do not approve this mode of practice. I can, however, from much experience, aſſert, that it is both the moſt eaſy, elegant, and efficacious method of cure; and that any bad conſequences ariſing from it muſt be owing to the ignorance or miſconduct of the practitioner himſelf, and not to the remedy. Many, for example, uſe ſtrong preparations of lead, all of which are dangerous when applied to the internal ſurfaces of the body; others uſe eſcharotics, which inflame and injure the parts. I have known a gonorrhœa actually cured by an injection made of green-tea, and would always recommend gentle methods where they will ſucceed.

† If the patient can ſwallow a ſolution of ſalts and manna, he may take ſix drachms, or, if his conſtitution requires it, an ounce of the former, with half an ounce of the latter. Theſe

When the inflammatory ſymptoms run high, bleeding is always neceſſary at the beginning. This operation, as in other topical inflammations, muſt be repeated according to the ſtrength and conſtitution of the patient, and the vehemence and urgency of the ſymptoms.

Medicines which promote the ſecretion of urine, are likewiſe proper in this ſtage of the diſorder. For this purpoſe, an ounce of nitre and two ounces of gum-arabic, pounded together, may be divided into twenty-four doſes, one of which may be taken frequently in a cup of the patient's drink. If theſe ſhould make him paſs his urine ſo often as to become troubleſome to him, he may either take them leſs frequently, or leave out the nitre altogether, and take equal parts of gum arabic and cream of tartar. Theſe may be pounded together, and a tea-ſpoonful taken in a cup of the patient's drink

may be diſſolved in an Engliſh pint of boiling water, whey, or thin water-gruel, and taken early in the morning.

If an infuſion of ſenna and tamarinds be more agreeable, two drachms of the former, and an ounce of the latter, may be infuſed all night in an Engliſh pint of boiling water. The infuſion may be ſtrained next morning, and half an ounce of Glauber's ſalts diſſolved in it. A tea cupful of this infuſion may be taken every half hour till it operates.

Should the patient prefer an electuary, the following will be found to anſwer very well. Take of the lenitive electuary four ounces, cream of tartar two ounces, jalap in powder two drachms, rhubarb one drachm, and as much of the ſyrup of pale roſes as will ſerve to make up the whole into a ſoft electuary. Two or three tea ſpoonfuls of this may be taken overnight, and about the ſame quantity next morning, every day that the patient chuſes to take a purge.

The doſes of the above medicines may be increaſed or diminiſhed according as the patient finds it neceſſary. We have ordered the ſalts to be diſſolved in a large qantity of water, becauſe it renders their operation more mild.

four

four or five times a-day. I have generally found this anſwer extremely well both as a diuretic, and for keeping the body gently open.

When the pain and inflammation are ſeated high towards the neck of the bladder, it will be proper frequently to throw up an emollient clyſter, which, beſides the benefit of procuring ſtools, will ſerve as a fomentation to the inflamed parts.

Soft poultices, when they can conveniently be applied to the parts, are of great ſervice. They may be made of the flour of linſeed, or of wheat-bread and milk, ſoftened with freſh butter or ſweet oil. When poultices cannot be conveniently uſed, cloths wrung out of warm water, or bladders filled with warm milk and water, may be applied. I have often known the moſt excruciating pains, during the inflammatory ſtate of the gonorrhœa, relieved by one or other of theſe applications.

Few things tend more to keep off inflammation in the ſpermatic veſſels, than a proper truſs for the ſcrotum. It ought to be ſo contrived as to ſupport the teſticles, and ſhould be worn from the firſt appearance of the diſeaſe till it has ceaſed ſome weeks.

The above treatment will ſometimes remove the gonorrhœa ſo quickly, that the perſon will be in doubt whether he really laboured under that diſeaſe. This, however, is too favourable a turn to be often expected.

When the above treatment has removed the heat of urine, and ſoreneſs of the genital parts; when the quantity of running is conſiderably leſſened, without any pain or ſwelling in the groin or teſticle ſupervening; when the patient is free from involuntary erections; and laſtly, when the running becomes pale, whitiſh, thick, void of ill ſmell, and tenacious or ropy; when all or moſt of theſe ſymptoms appear,

the gonorrhœa is arrived at its laſt ſtage, and we may gradually proceed to treat it as a gleet, with aſtringent and agglutinating medicines.

OF GLEETS.

A gonorrhœa frequently repeated, or improperly treated, often ends in a gleet, which may either proceed from relaxation, or from ſome remains of the diſeaſe. It is, however, of the greateſt importance, in the cure of the gleet, to know from which of theſe cauſes it proceeds. When the diſcharge proves very obſtinate, and receives little or no check from aſtringent remedies, there is ground to ſuſpect that it is owing to the latter; but, if the drain is inconſtant, and is chiefly obſervable when the patient is ſtimulated by laſcivious ideas, or upon ſtraining to go to ſtool, we may reaſonably conclude, that it is chiefly owing to the former.

In the cure of a gleet proceeding from relaxation, the principal deſign is to brace, and reſtore a proper degree of tenſion to the debilitated and relaxed veſſels. For this purpoſe, beſides the medicines recommended in the gonorrhœa, the patient may have recourſe to ſtronger and more powerful aſtringents, as the Peruvian bark*, alum, vitriol, galls, tincture of gum kino, &c. The injections may be rendered more aſtringent by the addition of a few grains of alum, or increaſing the quantity of vitriol as far as the parts are able to

* The Peruvian bark may be combined with other aſtringents, and prepared in the following manner:

Take of Peruvian bark bruiſed ſix drachms, of freſh galls bruiſed two drachms; boil them in a pound and a half of water to a pound: to the ſtrained liquor add three ounces of the ſimple tincture of the bark. A ſmall tea-cupful of this may be taken three times a-day, adding to each cup fifteen or twenty drops of the acid elixir of vitriol.

bear

bear it. From twenty to ſixty drops of the balſam capaivi, or oil of turpentine, taken two or three times a-day, in a little ſugar and water, will be found to be one of the moſt powerful medicines in theſe caſes.

The laſt remedy which we ſhall mention in this caſe is the cold bath, than which there is not perhaps a more powerful bracer in the whole compaſs of medicine. It ought never to be omitted in this ſpecies of gleet, unleſs there be ſomething in the conſtitution of the patient which renders the uſe of it unſafe. The chief objections to the uſe of the cold bath are, a full habit, and an unſound ſtate of the viſcera. The danger from the former may always be leſſened, if not removed, by purging and bleeding; but the latter is an unfathomable obſtacle, as the preſſure of the water, and the ſudden contraction of the external veſſels, by throwing the blood with too much force upon the internal parts, are apt to occaſion ruptures of the veſſels, or a flux of humors upon the diſeaſed organs. But where no objection of this kind prevails, the patient ought to plunge over head in water every morning faſting, for three or four weeks together. He ſhould not, however, ſtay long in the water, and ſhould take care to have his ſkin dried as ſoon as he comes out.

The regimen proper in this caſe, is the ſame as was mentioned in the laſt ſtage of the gonorrhœa: the diet muſt be drying and aſtringent, and the drink Spa, Pyrmont, or Briſtol waters, with which a little claret or red wine may ſometimes be mixed. Any perſon may now afford to drink theſe waters, as they can be every where prepared at almoſt no expence, by a mixture of common chalk and oil of vitriol.

When the gleet does not in the ſmalleſt degree yield to theſe medicines, there is reaſon to ſuſpect that it proceeds from ulcers. In this caſe, recourſe muſt

muſt be had to mercury, and the decoction of China, ſarſaparilla, ſaſſafras, or the like.

Mr. Fordyce ſays, he has ſeen many obſtinate gleets of two, three, or four years ſtanding, effectually cured by a mercurial unction, when almoſt every other medicine has been tried in vain. Dr. Chapman ſeems to be of the ſame opinion; but ſays, he has always found the mercury ſucceed beſt, in this caſe, when joined with terebinthinate and other agglutinating medicines. For which reaſon, the Doctor recommends pills made of calomel and Venice turpentine*; and deſires that their uſe may be accompanied with a decoction of guaiacum or ſarſaparilla.

The laſt kind of remedy which we ſhall mention for the cure of ulcers in the urinary paſſage, are the ſuppurating candles or bougies: as theſe are prepared various ways, and are generally to be bought ready made, it is needleſs to ſpend time in enumerating the different ingredients of which they are compoſed, or teaching the manner of preparing them. Before a bougie be introduced into the urethra, however, it ſhould be ſmeared all over with ſweet oil, to prevent it from ſtimulating too ſuddenly; it may be ſuffered to continue in from one to ſeven or eight hours, according as the patient can bear it. Obſtinate ulcers are not only often healed, but tumors and excreſcences in the urinary paſſages taken away, and an obſtruction of urine removed, by means of bougies. Obſtinate gleets may be removed by the uſe of bougies.

* Take Venice turpentine, boiled to a ſufficient degree of hardneſs, half an ounce, calomel half a drachm. Let theſe be mixed into ſixty pills, of which five or ſix may be taken night and morning. If, during the uſe of theſe pills, the mouth ſhould grow ſore, or the breath become offenſive, they muſt be diſcontinued till theſe ſymptoms diſappear.

OF

OF THE SWELLED TESTICLE.

The ſwelled teſticle may either proceed from infection lately contracted, or from the venereal poiſon lurking in the blood: the latter, indeed, is not very common, but the former frequently happens, both in the firſt and ſecond ſtages of a gonorrhœa; particularly when the running is unſeaſonably checked, by cold, hard drinking, ſtrong draſtic purges, violent exerciſe, the too early uſe of aſtringent medicines, or the like.

In the inflammatory ſtage bleeding is neceſſary, which muſt be repeated according to the urgency of the ſymptoms*. The food muſt be light, and the drink diluting. High-ſeaſoned food, fleſh, wines, and every thing of an heating nature, are to be avoided. Fomentations are of ſingular ſervice. Poultices of bread and milk, ſoftened with freſh butter or oil are likewiſe very proper, and ought to be applied when the patient is in bed, where he ought to be conſtantly: when he gets up, the teſticles ſhould be kept warm, and ſupported by a bag or truſs.

If it ſhould be found impracticable to cure the teſticle by the cooling regimen now pointed out, and extended according to circumſtances, it will be neceſſary to lead the patient through ſuch a complete anti-venereal courſe as ſhall enſure him againſt any future uneaſineſs. For this purpoſe, beſides rubbing the mercurial ointment on the part, if free from pain, or on the thighs, the patient muſt be confined to bed, if neceſſary, for five or ſix weeks,

* I have been accuſtomed, for ſome time paſt, to apply leeches to inflamed teſticles, which practice has always been followed with the moſt happy effects.

ſuſpending

ſuſpending the teſticle all the while with a bag or truſs, and plying him inwardly with ſtrong decoctions of ſarſaparilla.

When theſe means do not ſucceed, and there is reaſon to ſuſpect a ſcrophulous or cancerous habit, either of which may ſupport a ſchirrous induration, after the venereal poiſon is corrected, the parts ſhould be fomented daily with a decoction of hemlock, the bruiſed leaves of which may likewiſe be added to the poultice, and the extract at the ſame time taken inwardly*. This practice is ſtrongly recommended by Dr Stork in ſchirrous and cancerous caſes; and Mr Fordyce aſſures us, that by this method he has cured diſeaſed teſticles of two or three years ſtanding, even when ulcerated, and when the ſchirrus had begun to be affected with pricking and lancing pains.

OF BUBOES.

Venereal buboes are hard tumors ſeated in the groin, occaſioned by the venereal poiſon lodged in this part.

The cure of recent buboes, that is, ſuch as appear ſoon after impure coition, may be firſt attempted by *diſperſion*, and, if that ſhould not ſucceed, by *ſuppuration*. To promote the diſperſion of a bubo, the ſame regimen muſt be obſerved as was directed in the firſt ſtage of a gonorrhœa. The patient muſt likewiſe be bled, and take ſome cooling purges, as the decoction of tamarinds and ſenna, Glauber's ſalts, and the like. If, by this courſe, the ſwelling and other inflammatory ſymptoms abate, we may

* The extract of hemlock may be made into pills, and taken in the manner directed under the article Cancer.

ſafely

safely proceed to the use of mercury, which must be continued till the venereal virus is quite subdued*.

But if the bubo should, from the beginning, be attended with great heat, pain, and pulsation, and it cannot be dispersed, it will be proper to promote its suppuration. For this purpose the patient may be allowed to use emollient cataplasms, consisting of bread and milk, softened with oil or fresh butter, applied to the part; and, in cold constitutions, where the tumor advances slowly, white lily-roots boiled, or sliced onions raw, and a sufficient quantity of yellow basilicon, may be added to the poultice.

When the tumor is ripe, which may be known by its conical figure, the softness of the skin, and a fluctuation of matter plainly to be felt under the finger, it may be opened either by a caustic or a lancet, and afterwards dressed with digestive ointment†.

It sometimes however happens, that buboes can neither be dispersed nor brought to a suppuration, but remain hard, indolent tumors. In this case, the indurated glands must be consumed by caustic; if they should become schirrous, they must be dissolved by the application of hemlock, both externally and internally, as directed in the schirrous testicles.

OF CHANCRES.

Chancres are superficial, callous, eating ulcers, which may happen either with or without a gonorrhœa. They are commonly seated about the glans,

* For the dispersion of a bubo, a number of leeches applied to the part affected will be found equally efficacious as in the inflamed testicle.

† The caustic is preferable to the lancet, but it is better if they will open of themselves.

or prepuce, and make their appearance in the following manner. Firſt a little red pimple ariſes, which ſoon becomes pointed at top, and is filled with a whitiſh matter inclining to yellow. This pimple is hot, and itches generally before it breaks: afterwards it degenerates into an obſtinate ulcer, the bottom of which is uſually covered with a viſcid mucus, whoſe edges gradually become hard and callous. Sometimes the firſt appearance reſembles a ſimple excoriation of the cuticle; which, however, if the cauſe be venereal, ſoon becomes a true chancre.

A chancre is ſometimes a primary affection, but it is much oftener ſymptomatic, and is the mark of a confirmed lues. Primary chancres diſcover themſelves ſoon after impure coition, and are generally ſeated in parts covered with a thin cuticle, as the lips, the nipples of women, the *glans penis* of men, &c*.

When a chancre appears ſoon after impure coition, its treatment is nearly ſimilar to that of the virulent gonorrhœa, if there is much inflammation. The patient muſt obſerve the cooling regimen, loſe a little blood, and take ſome gentle doſes of ſalts and manna. The parts affected ought frequently to be bathed, or rather ſoaked, in warm milk and water, and, if the inflammation be great, an emollient poultice or cataplaſm may be applied to them. This courſe will, in moſt caſes, be ſufficient to abate the inflammation, and prepare the patient for the uſe of mercury.

* When venereal ulcers are ſeated in the lips, the infection may be communicated by kiſſing. I have ſeen very obſtinate venereal ulcers in the lips, which I had all the reaſon in the world to believe were communicated in this manner.

Nurſes ought to beware of ſuckling infected children, or having their breaſts drawn by perſons tainted with the venereal diſeaſe. This caution is peculiarly neceſſary for nurſes who reſide in the neighbourhood of great towns.

Symp-

Symptomatic chancres are commonly accompanied with ulcers in the throat, nocturnal pains, ſcurvy eruptions about the roots of the hair, and other ſymptoms of a confirmed lues. Though they may be ſeated in any of the parts mentioned above, they commonly appear upon the private parts, or the inſide of the thigh. They are alſo leſs painful, but frequently much larger and harder than primary chancres. As their cure muſt depend upon that of the pox, of which they are only a ſymptom, we ſhall take no further notice of them, till we come to treat of a confirmed lues*.

Thus we have related moſt of the ſymptoms which accompany or ſucceed a virulent gonorrhœa, or lues, and have alſo given a ſhort view of their proper treatment; there are, however, ſeveral others which ſometimes attend this diſeaſe, as a *ſtrangury*, or obſtruction of urine, a *phymoſis*, *paraphymoſis*, &c.

A ſtrangury may be occaſioned either by a ſpaſmodic conſtriction, or an inflammation of the urethra and parts about the neck of the bladder. In the former caſe, the patient begins to void his urine with tolerable eaſe; but, as ſoon as it touches the galled or inflamed urethra, a ſudden conſtriction takes place, and the urine is voided by ſpurts, and ſometimes by drops only. When the ſtranguary is owing to an inflammation about the neck of the bladder, there is a conſtant heat and uneaſineſs of the part, a perpetual deſire to make water, while the patient can only render a few drops, and a

* I have found it anſwer extremely well to ſprinkle chancres twice a-day with calomel. This will often perform a cure without any other application whatever. If the chancres are upon the *glans*, they may be waſhed with milk and water, a little warm, and afterwards the calomel may be applied as above, or they may be touched with the lunar cauſtic for two or three days, and then dreſſed with red precipitate finely powdered.

trouble-

troubleſome *teneſmus*, or conſtant inclination to go to ſtool.

When the ſtrangury is owing to ſpaſm, ſuch medicines as tend to dilute and blunt the ſalts of the urine will be proper. For this purpoſe, beſides the common diluting liquors, ſoft and cooling emulſions, ſweetened with the ſyrup of poppies, may be uſed. Should theſe not have the deſired effect, bleeding, and emollient fomentations, will be neceſſary.

When the complaint is evidently owing to an inflammation about the neck of the bladder, bleeding muſt be more liberally performed, and repeated according to the urgency of the ſymptoms. After bleeding, if the ſtrangury ſtill continues, ſoft clyſters, with a proper quantity of laudanum in them, may be adminiſtered, and emollient fomentations applied to the region of the bladder. At the ſame time, the patient may take, every four hours, a teacupful of barley-water, to a pint of which half an ounce of nitre may be added. If theſe remedies ſhould not relieve the complaint, and a total ſuppreſſion of urine ſhould come on, bleeding muſt be repeated, and the patient ſet in a warm bath up to the middle. It will be proper in this caſe to diſcontinue the diuretics, and to draw off the water with the catheter; but as the patient is ſeldom able to bear its being introduced, we would rather recommend the uſe of mild bougies. Theſe often lubricate the paſſage, and greatly facilitate the diſcharge of urine. Whenever they begin to ſtimulate or give any uneaſineſs, they may be withdrawn.

The *phymoſis* is ſuch a conſtriction of the prepuce over the glans, as hinders it from being drawn backwards; the *paraphymoſis*, on the contrary, is ſuch a conſtriction of the prepuce behind the glans, as hinders it from being brought forward.

The treatment of theſe ſymptoms is ſo nearly the ſame with that of the virulent gonorrhœa, that we have no occaſion to enlarge upon it. In general, bleeding, purging, poultices, and emollient fomentations are ſufficient. Cold water dropt on the part has ſometimes relieved the moſt violent caſes, eſpecially if it be applied for a conſiderable time.

It ſometimes happens, that, in ſpite of all endeavours to the contrary, the inflammation goes on, and ſymptoms of a beginning mortification appear. When this is the caſe the prepuce muſt be ſcarified with a lancet, and, if neceſſary, divided, in order to prevent a ſtrangulation, and ſet the impriſoned glans at liberty. We ſhall not deſcribe the manner of performing this operation, as it ought always to be done by a ſurgeon. When a mortification has actually taken place, it will be neceſſary, beſides performing the above operations, to foment the parts frequently with cloths wrung out of a ſtrong decoction of camomile-flowers and bark, and to give the patient a drachm of the bark in powder every two or three hours.

With regard to the *priapiſm*, *chordee*, and other diſtortions of the *penis*, their treatment is no way different from that of the gonorrhœa. When they prove very troubleſome, the patient may take a doſe of laudanum at night, eſpecially after the operation of a purgative through the day.

OF A CONFIRMED LUES.

We have hitherto treated of thoſe affections in which the venereal poiſon is ſuppoſed to be confined chiefly to the particular part by which it was received, and ſhall next take a view of the lues in its confirmed ſtate; that is, when the poiſon is actually received into the blood, and, circulating with it

through every part of the body, mixes with the ſeveral ſecretions, and renders the whole habit tainted.

The ſymptoms of confirmed lues are, chancres, buboes in the groin, pains of the head and joints, which are peculiarly troubleſome in the night, or when the patient is warm in bed; ſcabs and ſcurfs in various parts of the body, eſpecially on the head, of a yellowiſh colour, reſembling a honey-comb; corroding ulcers in various parts of the body, which generally begin about the throat, from whence they creep gradually, by the palate, towards the cartilage of the noſe, which they deſtroy; eruptions in different parts, excreſcences or exoſtoſes ariſe in the middle of the bones, and their ſpongy ends become brittle; and break upon the leaſt accident; at other times they are ſoft, and bend like wax; the conglobate glands become hard and callous, and form, in the neck, armpits, groin, and meſentery, hard moveable tumours, like the king's evil; tumours of different kinds are likewiſe formed in the lymphatic veſſels, tendons, ligaments, and nerves, as the *gummata*, *ganglia*, *nodes*, *tophs*, &c.; the eyes are affected with itching, pain, redneſs, and ſometimes with total blindneſs, and the ears with a ſinging noiſe, pain, and deafneſs, whilſt their internal ſubſtance is exulcerated and rendered carious; at length all the animal, vital, and natural functions are depraved; the face becomes pale and livid; the body emaciated and unfit for motion, and the miſerable patient falls into an atrophy or waſting conſumption.

Women have ſymptoms peculiar to the ſex; as cancers of the breaſt; a ſuppreſſion or overflowing of the menſes; the whites; hyſteric affections; an inflammation, abſceſs, ſchirrhus, gangrene, cancer, or ulcer of the womb; they are generally either barren or ſubject to abortion; or, if they bring children

children into the world, they have an univerſal erysipelas, are half rotten, and covered with ulcers.

Such is the catalogue of ſymptoms attending this dreadful diſeaſe in its confirmed ſtate. Indeed they are ſeldom all to be met with in the ſame perſon, or at the ſame time; ſo many of them, however, are generally preſent as are ſufficient to alarm the patient; and if he has reaſon to ſuſpect the infection is lurking in his body, he ought immediately to ſet about the expulſon of it, otherwiſe the moſt tragical conſequences may enſue.

The only certain remedy hitherto known for the cure of this diſeaſe, is mercury, which may be uſed in a great variety of forms, with nearly the ſame ſucceſs. Some time ago it was reckoned impoſſible to cure a confirmed lues without a ſalivation. This method is now however pretty generally laid aſide, and mercury is found to be by far moſt efficacious in expelling the venereal poiſon, when adminiſtered in ſuch a manner as not to run off by the ſalivary glands.

The moſt certain mode of curing this diſeaſe is to introduce mercury into the ſyſtem until we obſerve the ſymptoms to give way, then continue its uſe until the ſymptoms entirely diſappear and for ſome time afterwards. If we uſe the mercurial ointment, half a drachm may be rubbed into the inſide of the thighs, or legs, or arms, twice a day, taking care, daily to waſh theſe parts with warm water and Caſtile ſoap. If we uſe mercury internally, the mercurial pill, ſee Appendix, may be given in common caſes, from one to three every day. If the ſymptoms are violent or the ſkin affected, the ſolution or pill of ſublimate, ſee Appendix. This laſt in ſmall doſes agrees beſt with children. The main point is to charge the body with mercury, and this may be effected, by not letting it run off by the bowels,

which a little opium will prevent; and not getting cold, which would bring on a ſalivation.

It is impoſſible to aſcertain either the exact quantity of medicines that muſt be taken, or the time they ought to be continued, in order to perform a cure. Theſe will ever vary according to the conſtitution of the patient, the ſeaſon of the year, the degree of infection, the time it has lodged in the body, &c. But though it is difficult, as Aſtruc obſerves, to determine *à priori*, what quantity of mercury will, in the whole, be neceſſary to cure this diſtemper completely; yet it may be judged of *à poſteriori*, from the abatement and ceaſing of the ſymptoms. The ſame author adds, that commonly not leſs than two ounces of the ſtrong mercurial ointment is ſufficient, and not more than three or four ounces neceſſary.

Several roots, woods, and barks, have been recommended for curing the venereal diſeaſe; but none of them have been found, upon experience, to anſwer the high encomiums, which had been beſtowed upon them. Though no one of theſe is to be depended upon alone, yet, when joined with mercury, ſome of them are found to be very beneficial in promoting a cure. One of the beſt we know yet is ſarſaparilla, which may be prepared and taken according to the directions in the Appendix *.

The mezereon-root is likewiſe found to be a powerful aſſiſtant to the ſublimate, or any other mercurial. It may either be uſed along with the ſarſaparilla, as directed in the Appendix, or by itſelf. Thoſe who chuſe to uſe the mezereon by itſelf, may boil an ounce of the freſh bark, taken from the root, in twelve pints of water to eight, adding towards the

* See Appendix, *Decoct. of Sarſaparilla.*

end

end an ounce of liquorice. The doſe of this is the ſame as of the decoction of ſarſaparilla.

We have been told that the natives of America cure the venereal diſeaſe, in every ſtage, by a decoction of the root of a plant called the Lobelia. It is uſed either freſh or dried; but we have no certain accounts with regard to the proportion. Sometimes they mix other roots with it, as thoſe of the ranunculus, the ceanothus, &c.; but whether theſe are deſigned to diſguiſe or aſſiſt it, is doubtful. The patient takes a large draught of the decoction early in the morning, and continues to uſe it for his ordinary drink through the day *. It has of late years been aſſerted that opium alone, in large doſes, would entirely cure this diſeaſe. It is certain that opium is of great ſervice by leſſening the irritability of the bowels, and by the relief it gives in thoſe caſes of violent pain which ſo often accompany this diſeaſe, and there

* Though we are ſtill very much in the dark with regard to the method of curing this diſeaſe among the natives of America, yet it is generally affirmed, that they do cure it with ſpeed, ſafety, and ſucceſs, and that without the leaſt knowledge of mercury. Hence it becomes an object of conſiderable importance to diſcover their method of cure. This might ſurely be done by making trials of the various plants which are found in thoſe parts, and particularly of ſuch as the natives are known to make uſe of. All people in a rude ſtate take their medicines chiefly from the vegetable kingdom, and are often poſſeſſed of valuable ſecrets with regard to the virtues of plants, of which more enlightened nations are ignorant. Indeed we make no doubt but ſome plants of our own growth, were proper pains taken to diſcover them, would be found as efficacious in curing the venereal diſeaſe as thoſe of America. It muſt, however, be remembered, that what will cure the venereal diſeaſe in one country, will not always be found to have equal ſucceſs is another; and it is moſt probable that no medicine but mercury will cure this diſeaſe; and although many diſtreſſing ſymptoms, ſuch as ulcers, nodes, &c. remain after the proper uſe of mercury, yet theſe are not venereal, and are to be cured by ſome of the many remedies here recommended.

is no doubt that many fores, originally of this nature, have been cured by it, but it does not certainly appear that opium will do any thing more.

Many other roots and foods might be mentioned which have been extolled for curing the venereal diſeaſe, as the china-root, the roots of ſoap-wort, burdock, &c. as alſo the wood of guaiacum and ſaſſafras; but as none of theſe have been found to poſſeſs virtues ſuperior to thoſe already mentioned, we ſhall, for the ſake of brevity, paſs them over, and ſhall conclude our obſervations on this diſeaſe with a few general remarks concerning the proper management of the patient, and the nature of the infection.

GENERAL OBSERVATIONS.

The condition of the patient ought always to be conſidered previouſly to his entering upon a courſe of mercury in any form. It might be raſh and dangerous to adminiſter mercury to a perſon labouring under any violent acute diſeaſe, as a fever, pleuriſy, peripneumony, or the like. It would likewiſe be dangerous in ſome chronic caſes; as a ſlow hectic fever, or the laſt ſtage of a conſumption. Sometimes, however, theſe diſeaſes proceed from a confirmed lues; in which caſe it will be neceſſary to give mercury. In chronic diſeaſes of a leſs dangerous nature, as the aſthma, the gravel, and ſuch like, mercury, if neceſſary, may be ſafely adminiſtered. If the patient's ſtrength has been greatly exhauſted by ſickneſs, labour, abſtinence, or any other cauſe, the uſe of mercury muſt be poſtponed, till by time, reſt, and a nouriſhing diet, it can be ſufficiently reſtored.

If in pregnancy circumſtances render it neceſſary, mercury may be given, but in ſmaller doſes, and at greater intervals than uſual; with theſe precautions, both the mother and child may be cured at the ſame time;

time; if not, the diſorder will at leaſt be kept from growing worſe, till the woman be brought to bed and ſufficiently recovered, when a more effectual method may be purſued, which, if ſhe ſuckles her child, will in all probability be ſufficient for the cure of both.

Mercury ought always to be adminiſtered to infants with caution. A ſimilar conduct is recommended in the treatment of old perſons, who have the misfortune to labour under a confirmed lues.

Hyſteric perſons, and ſuch as are ſubject to an habitual diarrhœa, or who are afflicted with the ſcurvy, ought to be cautious in the uſe of mercury. Where any one of theſe diſorders prevails, it ought, if poſſible, to be cured, or at leaſt palliated, before the patient enters upon a courſe of mercury. When this cannot be done, the mercury muſt be adminiſtered in ſmaller doſes, and at longer intervals than uſual.

The moſt proper ſeaſons for entering upon a courſe of mercury, are the ſpring, ſummer, and autumn, when the air is of a moderate warmth. If the circumſtances of the caſe, however, will not admit of delay, we muſt not defer the cure on account of the ſeaſon, but muſt adminiſter the mercury; taking care at the ſame time to keep the patient's chamber warmer or cooler according as the ſeaſon of the year requires.

The next thing to be conſidered is the preparation neceſſary to be obſerved before we proceed to adminiſter a courſe of mercury. Some lay great ſtreſs upon this circumſtance, obſerving, that by previouſly relaxing the veſſels, and correcting any diſorder which may happen to prevail in the blood, not only the mercury will be diſpoſed to act more kindly, but many other inconveniences will be prevented.

We have already recommended bleeding and gentle purges, previouſly to the adminiſtration of

mercury, and ſhall only now add, that theſe are always to be repeated according to the age, ſtrength, conſtitution, and other circumſtances of the patient. Afterwards, if it can be conveniently done, the patient ought to bathe once or twice a-day, for a few days, in lukewarm water. His diet in the mean time muſt be light, moiſt, and cooling. Wine, and all heating liquors, alſo violent bodily exerciſe, and all great exertions of the mind, are carefully to be avoided.

A proper regimen is likewiſe to be obſerved by ſuch as are under a courſe of mercury. Inattention to this not only endangers the patient's life, but often alſo diſappoints him of a cure. A much ſmaller quantity of mercury will be ſufficient for the cure of a perſon who lives low, keeps warm, and avoids all manner of exceſs, than of one who cannot endure to put the ſmalleſt reſtraint upon his appetites: indeed it but rarely happens that ſuch are thoroughly cured. If, for want of proper attention to theſe cautions, the mouth ſhould become ſore, and ſalivation come on, the patient may firſt of all be bled, if the pulſe and conſtitution require it. He muſt keep in his chamber, take a tea-ſpoonful of the flowers of ſulphur twice a-day, in a little milk or molaſſes, waſh his mouth with an aſtringent gargle, and diſcontinue the mercury; this will generally ſet all to rights in a few days.

There is hardly any thing of more importance, either for preventing or removing venereal infection than cleanlineſs. By an early attention to this, the infection might often be prevented from entering the body; and, where it has already taken place, its effects may be greatly mitigated. The moment any perſon has reaſon to ſuſpect that he has received the infection, he ought to waſh the parts with water and ſpirits, ſweet oil, or milk and water; a ſmall quantity

of

of the laſt may likewiſe be injected up the urethra, if it can be conveniently done. Whether this diſeaſe at firſt took its riſe from dirtineſs is hard to ſay; but wherever that prevails, the infection is found in its greateſt degree of virulence, which gives ground to believe that a ſtrict attention to cleanlineſs would go far towards extirpating it altogether *.

When the venereal diſeaſe has been neglected or improperly treated, it often becomes a diſorder of the habit. In this caſe the cure muſt be attempted by reſtoratives, as a milk diet, the decoction of ſarſaparilla, and ſuch like, to which mercury may be occaſionally added. It is a common practice in North

* I have not only ſeen a recent infection carried off in a few days by means of cleanlineſs, viz. bathing, fomentations, injections, &c. but have likewiſe found it of the greateſt advantage in the more advanced ſtages of the diſeaſe. Of this I had lately a very remarkable inſtance in a man whoſe penis was almoſt wholly conſumed by venereal ulcers; the matter had been allowed to continue on the ſores, without any care having been taken to clean them, till, notwithſtanding the uſe of mercury and other medicines, it had produced the effects above mentioned. I ordered warm milk and water to be injected three or four times a day into all the ſinuous ulcers, in order to waſh out the matter; after which they were ſtuffed with dry lint to abſorb the freſh matter as it was generated. The patient at the ſame time took every day half a grain of the corroſive ſublimate of mercury, diſſolved in an ounce of brandy, and drank a quart of the decoction of ſarſaparilla. By this treatment, in about ſix weeks, he was perfectly cured; and, what was very remarkable, a part of the penis was actually regenerated.

Doctor Gilchriſt has given an account of a ſpecies of the *lues venerea* which prevails in the weſt of Scotland, to which the natives gave the name of *Sibbins* or *Sivvins*. The Doctor obſerves, that the ſpreading of this diſeaſe is chiefly owing to a neglect of cleanlineſs, and ſeems to think, that by a due attention to that *virtue*, it might be extirpated. The treatment of this diſeaſe is ſimilar to that of a confirmed lues or pox. The *yaws*, a diſeaſe which is now very common both in America and the Weſt India iſlands, may alſo be cured in the ſame manner.

Britain

Britain to ſend ſuch patients to drink goat-whey. This is a very proper plan, provided the infection has been totally eradicated before-hand; but when that is not the caſe, and the patient truſts to the whey for finiſhing his cure, he will often be diſappointed. I have frequently known the diſeaſe return with all its virulence after a courſe of goat-whey, even when that courſe had been thought quite ſufficient for completing the cure.

One of the moſt unfortunate circumſtances attending patients in this diſeaſe, is the neceſſity they are often laid under of being ſoon well. This induces them to take medicine too faſt, and to leave it off too ſoon. A few grains more of medicine, or a few days longer confinement, would often be ſufficient to perfect the cure; whereas, by neglect of theſe, a ſmall degree of virulence is ſtill left in the humors, which gradually vitiates, and at length contaminates the whole maſs. To aviod this, we would adviſe, that the patient ſhould never leave off taking medicine immediately upon the diſappearing of the ſymptoms, but continue it for ſome time after, gradually leſſening the quantity, till there is ſufficient ground to believe that the diſeaſe is entirely eradicated.

It is not only difficult, but abſolutely impoſſible, to aſcertain the exact degree of virulence that may attend the diſeaſe; for which reaſon it will always be a much ſafer rule to continue the uſe of medicine too long, than to leave it off too ſoon. This ſeems to be the leading maxim of a modern practitioner of ſome note for the venereal diſeaſe, who always orders his patient to perform a quarantine of at leaſt forty days, during which time he takes forty bottles of, I ſuppoſe, a ſtrong decoction of ſarſaparilla, or ſome other anti-venereal ſimple. Whoever takes this method, and adds a ſufficient quantity of corroſive ſublimate,

ſublimate, or ſome other active preparation of mercury to the decoction, will generally cure a confirmed lues.

It is peculiarly unfortunate for the cure of this diſeaſe, that not one in ten of thoſe who contract it, are either able or willing to ſubmit to a proper plan of regimen. The patient is willing to take medicine; but he muſt follow his buſineſs, and, to prevent ſuſpicions, muſt eat and drink like the reſt of the family. This is the true ſource of nine-tenths of all the miſchief ariſing from the venereal diſeaſe. I never knew the cure attended with any great difficulty or danger where the patient ſtrictly followed the phyſician's advice: but a volume would not be ſufficient to point out the dreadful conſequences which proceed from an oppoſite conduct. Schirrous teſticles, ulcerous ſore throats, madneſs, conſumptions, carious bones, and a rotten progeny, are a few of the *bleſſings* derived from this ſource.

There is a ſpecies of falſe reaſoning, with regard to this diſeaſe, which proves fatal to many. A perſon of a ſound conſtitution contracts a ſlight degree of the diſorder. He gets well without taking any great care, or uſing much medicine, and hence concludes, that this will always be the caſe. The next time the diſeaſe occurs, though ten times more virulent, he purſues the ſame courſe, and his conſtitution is ruined. Indeed, the different degrees of virulence in the ſmall-pox are not greater than in this diſeaſe, though, as the learned Sydenham obſerves, in ſome caſes the moſt ſkilful phyſicians cannot cure, and in others the moſt ignorant old woman cannot kill the patient in that diſorder. Though a good conſtitution is always in favour of the patient, yet too great ſtreſs may be laid upon it. It does not appear from obſervation, that the moſt robuſt conſtitution is able to overcome the virulence of the venereal contagion, after

it

it has got into the habit. In this caſe a proper courſe of medicine is always indiſpenſably neceſſary.

Although it is impoſſible, on account of the different degrees of virulence, &c. to lay down fixed and certain rules for the cure of this diſeaſe, yet the following general plan will always be found ſafe, and often ſucceſsful, *viz.* to bleed and adminiſter gentle purges with diuretics during the inflammatory ſtate, and as ſoon as the ſymptoms of inflammation are abated, to adminiſter mercury in the form that is beſt ſuited to the ſymptoms. The ſame medicine, aſſiſted by the decoction of ſarſaparilla, and a proper regimen, will not only ſecure the conſtitution againſt the further progreſs of a confirmed pox, but will generally perform a complete cure; and if the patient is weakened by the courſe, or by the diſeaſe, the bark, reſtorative diet, and above all, country air, will be neceſſary to reſtore his health.

CHAP. XLIX.

Diſeaſes of Women.

WOMEN, in all civilized nations, have the management of domeſtic affairs, and it is very proper they ſhould, as Nature has made them leſs fit for the more active and laborious employments. This indulgence, however, is generally carried too far; and females, inſtead of being benefited by it, are greatly injured, from the want of exerciſe and free air. To be ſatisfied of this, one need only compare the freſh and ruddy looks of a milk-maid, with the pale complexion of thoſe females whoſe whole

whole time is ſpent within doors. Though Nature has made an evident diſtinction between the male and female with regard to bodily ſtrength and vigour, yet ſhe certainly never meant, either that the one ſhould be always without, or the other always within doors.

The confinement of females, beſides hurting their figure and complexion, relaxes their ſolids, weakens their minds, and diſorders all the functions of the body. Hence proceed obſtructions, indigeſtions, flatulencies, abortions, and the whole train of nervous diſorders. Theſe not only unfit women for being mothers and nurſes, but often render them whimſical and ridiculous. A ſound mind depends ſo much upon a healthy body, that where the latter is wanting, the former is rarely to be found.

I have always obſerved, that women who were chiefly employed without doors, in the different branches of huſbandry, gardening, and the like, were almoſt as hardy as their huſbands, and that their children likewiſe were ſtrong and healthy. But as the bad effects of confinement and inactivity upon both ſexes have been already ſhewn, we ſhall proceed to point out thoſe circumſtances in the ſtructure and deſign of females, which ſubject them to peculiar diſeaſes; the chief of which are, their *monthly evacuations*, *pregnancy*, and *child-bearing*. Theſe indeed cannot properly be called diſeaſes, but from the delicacy of the ſex, and their being often improperly managed in ſuch ſituations, they become the ſource of numerous calamities.

OF THE MENSTRUAL DISCHARGE.

Females generally begin to menſtruate about the age of fifteen, and leave it off about fifty, which renders theſe two periods the moſt critical of their lives.

lives *. About the firſt appearance of this diſcharge, the conſtitution undergoes a very conſiderable change, generally indeed for the better, though ſometimes for the worſe. The greateſt care is now neceſſary, as the future health and happineſs of the female depends in a great meaſure upon her conduct at this period †.

If a girl about this time of life be confined to the houſe, kept conſtantly ſitting, and neither allowed to run about, nor employed in any active buſineſs, which gives exerciſe to the whole body, ſhe becomes weak, relaxed, and puny; her blood not being duly prepared, ſhe looks pale and wan; her health, ſpirits, and vigor decline, and ſhe ſinks into a valetudinarian for life. Such is the fate of numbers of thoſe unhappy females, who, either from too much indulgence, or their own narrow circumſtances, are, at this critical period, denied the benefit of exerciſe and free air.

A lazy indolent diſpoſition proves likewiſe very hurtful to girls at this period. One ſeldom meets with complaints from obſtructious amongſt the more active and induſtrious part of the ſex; whereas the indolent and lazy are ſeldom free from them. Theſe are in a manner eaten up by the *chloroſis*, or green-

* This period, however, varies in different countries. It occurs earlieſt in ſouthern climates.

† It is the duty of mothers, and thoſe who are entruſted with the education of girls, to inſtruct them early in the conduct and management of themſelves at this critical period of their lives. Falſe modeſty, inattention, and ignorance of what is beneficial or hurtful at this time, are the ſources of many diſeaſes and misfortunes in life, with a few ſenſible leſſons from an experienced matron might have prevented. Nor is care leſs neceſſary in the ſubſequent returns of this diſcharge. Taking improper food, violent affections of the mind, or catching cold at this period, is often ſufficient to ruin the health, or to render the female ever after incapable of procreation.

ſickneſs,

ſickneſs, and other diſeaſes of this nature. We would therefore recommend it to all who wiſh to eſcape theſe calamities, to avoid indolence and inactivity, as their greateſt enemies, and to be as much abroad in the open air as poſſible.

Another thing which proves very hurtful to girls about this period of life, is unwholeſome food. Fond of all manner of traſh, they often indulge in it, till their whole humors are quite vitiated. Hence enſue indigeſtions, want of appetite, and a numerous train of evils. If the fluids be not duly prepared, it is utterly impoſſible that the ſecretions ſhould go properly on. Accordingly we find, that ſuch girls as lead an indolent life, and eat great quantities of traſh, are not only ſubject to obſtructions of the menſes, but likewiſe to glandular obſtructions; as the ſcrophula or king's evil, &c.

A dull diſpoſition is alſo very hurtful to girls at this period. It is a rare thing to ſee a ſprightly girl who does not enjoy good health, while the moping, melancholy creature, proves the very prey of vapours and hyſterics. Youth is the ſeaſon for mirth and cheerfulneſs. Let it therefore be indulged. It is an abſolute duty. To lay in a ſtock of health in time of youth, is as neceſſary a piece of prudence, as to make proviſion againſt the decays of old age. While, therefore, wiſe Nature prompts the happy youth to join in ſprightly amuſements, let not the ſevere dictates of hoary age forbid the uſeful impulſe, nor damp, with ſerious gloom, the ſeaſon deſtined to mirth and innocent feſtivity.

Another thing very hurtful to females about this period of life is ſtrait clothes. They are fond of a fine ſhape, and foolihly imagine that this can be acquired by lacing themſelves tight. Hence, by ſqueezing the ſtomach and bowels, they hurt the digeſtion, and occaſion many incurable maladies.

This

This error is not indeed so common as it has been; but, as fashions change, it may come about again: we therefore think it not improper to mention it. I know many females who, to this day, feel the direful effects of that wretched custom which prevailed some years ago, of squeezing every girl into as small a size in the middle as possible. Human invention could not possibly have devised a practice more destructive to health.

After a female has arrived at that period of life when the *menses* usually begin to flow, and they do not appear, but, on the contrary, her health and spirits begin to decline, we would advise, instead of shutting the poor girl up in the house, and dosing her with steel, asafœtida, and other nauseous drugs, to place her in a situation where she can enjoy the benefit of free air and agreeable company. There let her eat wholesome food, take sufficient exercise, and amuse herself in the most agreeable manner; and we have little reason to fear, but Nature, thus assisted, will do her proper work. Indeed she seldom fails, unless where the fault is on our side *.

The discharge in the beginning is seldom so instantaneous as to surprise females unawares. It is generally preceded by symptoms which foretel its approach; as a sense of heat, weight, and dull pain in the loins; distention and hardness of the breasts; head-ach; loss of appetite; lassitude; paleness of the countenance, and sometimes a slight degree of fever. When these symptoms appear about the age at which the menstrual flux usually begins, every

* This advice is well worth attending to. Instead of trusting to medicine, we should attend to the general health, which is best procured by country air, exercise, and the cold bath. When this is established, we may use the preparations of steel with the greatest advantage.

thing ſhould be carefully avoided which may obſtruct that neceſſary and ſalutary evacuation*.

After the *menſes* have once begun to flow, the greateſt care ſhould be taken to avoid every thing that may tend to obſtruct them. Females ought to be exceeding cautious of what they eat or drink at the time they are out of order. Every thing that is cold, or apt to ſour on the ſtomach, ought to be avoided; as fruit, butter-milk, and ſuch like. Fiſh, and all kinds of food that are hard of digeſtion, are alſo to be avoided. As it is impoſſible to mention every thing that may diſagree with individuals at this time, we would recommend it to every female to be very attentive to what diſagrees with herſelf, and carefully to avoid it.

Cold is extremely hurtful at this particular period. More of the ſex date their diſorders from colds, caught while they are out of order, than from all other cauſes. This ought ſurely to put them upon their guard, and to make them very circumſpect in their conduct at ſuch times. A degree of cold that will not in the leaſt hurt them at another time, will at this period be ſufficient entirely to ruin their health and conſtitution.

The greateſt attention ought likewiſe to be paid to the mind, which ſhould be kept as eaſy and cheerful as poſſible. Every part of the animal œconomy is influenced by the paſſions, but none more ſo than this. Anger, fear, grief, and other affections of the mind, often occaſion obſtructions of the menſtrual flux, which prove abſolutely incurable.

* Complaints of the breaſt, coſtiveneſs, and violent pain in different parts, now alſo occur. Theſe are to be treated accordingly. For the pain, nothing anſwers better than the camphor mixture with ſome laudanum. See Appendix.

From whatever cauſe this flux is obſtructed, except in the ſtate of pregnancy, proper means ſhould be uſed to reſtore it. For this purpoſe we would recommend ſufficient exerciſe, in a dry, open, and rather cool air; wholeſome diet, and, if the body be weak and languid, generous liquors; alſo cheerful company and proper active amuſements. If theſe fail, recourſe muſt be had to medicine.

When obſtructions proceed from a weak relaxed ſtate of the ſolids, ſuch medicines as tend to promote digeſtion, to brace the ſolids, and aſſiſt the body in preparing good blood, ought to be uſed. The principal of theſe are iron and the Peruvian bark, with other bitter and aſtringent medicines. Prepared ſteel may be taken in the doſe of half a drachm, mixed with a little honey or treacle, three or four times a-day. Or what is much better, and by far more powerful, from four to eight grains of the ſalt of ſteel or green vitriol, made into a powder with twenty or thirty grains of prepared ſteel twice a-day; or the ſame quantity of ſalt of ſteel may be taken in the form of pills, made up with the ſoft extract of gentian. The bark and other bitters may either be taken in ſubſtance or infuſion, as is moſt agreeable to the patient.

When obſtructions proceed from an inflammatory ſtate of the ſyſtem; or for women of a groſs or full habit, evacuations, and ſuch medicines as attenuate the humors, are neceſſary. The patient in this caſe ought to be bled, to bathe her feet frequently in warm water, to take now and then a cooling purge, and to live upon a ſpare thin diet. Her drink ſhould be whey, water, or ſmall beer, and ſhe ought to take ſufficient exerciſe. A tea-ſpoonful of the tincture of black hellebore may alſo be taken twice a-day in a cup of warm water.

When obſtructions proceed from affections of the mind, as grief, fear, anger, &c. every method ſhould be

be taken to amuſe and divert the patient. And that ſhe may the more readily forget the cauſe of her affliction, ſhe ought, if poſſible to be removed from the place where it happened. A change of place, by preſenting the mind with a variety of new objects, has often a very happy influence in relieving it from the deepeſt diſtreſs. A ſoothing, kind, and affable behaviour to females in this ſituation is alſo of the laſt importance.

An obſtruction of the *menſes* is often the effect of other maladies. When this is the caſe, inſtead of giving medicines to force that diſcharge, which might be dangerous, we ought by all means to endeavour to reſtore the patient's health and ſtrength. When that is effected, the other will return of courſe.

But the menſtrual flux may be too great as well as too ſmall. When this happens, the patient becomes weak, the colour pale, the appetite and digeſtion are bad, and œdematous ſwellings of the feet, dropſies, and conſumptions often enſue. This frequently happens to women about the age of forty-five or fifty, and is very difficult to cure. It may proceed from a ſedentary life; a full diet, conſiſting chiefly of ſalted, high-ſeaſoned, or acrid food; the uſe of ſpirituous liquors; exceſſive fatigue; relaxation; a ſtate of debility; violent paſſions of the mind, &c.

The treatment of this diſeaſe muſt be varied according to its cauſe. When it is occaſioned by any error in the patient's regimen, an oppoſite courſe to that which induced the diſorder muſt be purſued, and ſuch medicines taken as have a tendency to reſtrain the flux, and counteract the morbid affections of the ſyſtem from whence it proceeds.

To reſtrain the flux, the patient ſhould be kept quiet and eaſy both in body and mind. If it be very violent, and the pulſe will bear it, ſhe muſt be

bled, and ought to lie in bed with her head low; to live upon a cool and ſlender diet, as veal or chicken broths with bread; and to drink decoctions of nettle-roots, or the greater comfrey. If theſe be not ſufficient to ſtop the flux, ſtronger aſtringents may be uſed, as Japan earth, Gum kino, alum, elixir of vitriol, the Peruvian bark*, &c.

The *uterine flux* may offend in quality as well as in quantity. What is uſually called the *fluor albus*, or whites, is a very common diſeaſe, and proves extremely hurtful to delicate women. This diſcharge, however, is not always white, but ſometimes pale, yellow, green, or of a blackiſh colour; ſometimes it is ſharp and corroſive, ſometimes foul and fœtid, &c. It is attended with a pale complexion, pain in the back, loſs of appetite, ſwelling of the feet, and other ſigns of debility. It proceeds from a relaxed ſtate of the body, ariſing from indolence, the exceſſive uſe of tea, coffee, or other weak and watery diet, and a variety of other cauſes.

To remove this diſeaſe, the patient muſt take as much exerciſe as ſhe can bear without fatigue. Her food ſhould be ſolid and nouriſhing, but of eaſy digeſtion; and her drink rather generous, as red port or claret, mixed with Pyrmont, Briſtol, or lime-water. Tea and coffee are to be avoided. I have often known ſtrong broths have an exceeding good effect,

* Two drachms of alum and one of Japan earth may be pounded together, and divided into eight or nine doſes, one of which may be taken three times a-day.

Perſons whoſe ſtomachs cannot bear the alum, may take two table-ſpoonfuls of the tincture of roſes three or four times a-day, to each doſe of which ten drops of laudanum may be added.

If theſe ſhould fail, half a drachm of the Peruvian bark, in powder, with ten drops of the elixir of vitriol, may be taken, in a glaſs of red wine, four times a-day.

and

and ſometimes a milk diet alone will perform a cure. The patient ought not to lie too long a-bed. When medicine is neceſſary, we know none preferable to the Peruvian bark, which in this caſe ought always to be taken in ſubſtance. In warm weather, the cold bath will be of conſiderable ſervice. This is a very diſtreſſing complaint, and is owing to a variety of cauſes, which muſt ſeverally be attended to. Where it is owing to mere debility, the preparations of iron and balſam capaivi are the beſt medicines.

That period of life at which the *menſes* ceaſe to flow, is likewiſe very critical to the ſex. The ſtoppage of any cuſtomary evacuation, however ſmall, is ſufficient to diſorder the whole frame, and often to deſtroy life itſelf. Hence it comes to paſs, that ſo many women fall into chronic diſorders, about this time. Such of them, however, as ſurvive it, without contracting any chronic diſeaſes, often become more healthy and hardy than they were before, and enjoy ſtrength and vigour to a very great age.

If the *menſes* ceaſe all of a ſudden, in women of a full habit, they ought to abate ſomewhat of their uſual quantity of food, eſpecially of the more nouriſhing kind, as fleſh, eggs, &c. They ought likewiſe to take ſufficient exerciſe, and to keep the body open. This may be done by taking, once or twice a-week, a little rhubarb, or tincture of aloes; and ſmall but repeated bleedings are of great ſervice.

It often happens that women of a groſs habit, at this period of life, have ulcerous ſores break out about their ankles, or in other parts of the body. Such ulcers ought to be conſidered as critical, and ſhould either be ſuffered to continue open, or have artificial drains ſubſtituted in their ſtead. Women who will have ſuch ſores dried up, are often ſoon after carried off by acute diſeaſes, or fall into thoſe of a chronic nature.

OF PREGNANCY.

Though pregnancy is not a diſeaſe, yet that ſtate is often attended with a variety of complaints which merit attention, and which ſometimes require the aſſiſtance of medicine. Some women indeed are more healthy during their pregnancy than at any other time; but this is by no means the general caſe: moſt of them *breed in ſorrow*, and are frequently indiſpoſed during the whole time of pregnancy. Few fatal diſeaſes, however, happen during that period; and hardly any, except abortion, that can be called dangerous. We ſhall therefore pay particular attention to them, as it proves generally fatal to the child, and ſometimes ſo to the mother.

Pregnant women are often afflicted with the heart-burn. The method of treating this complaint has been already pointed out. They are likewiſe, in the more early periods of pregnancy, often haraſſed with ſickneſs and vomiting, eſpecially in the morning. The method of relieving theſe complaints has alſo been ſhewn. Both the head-ach and tooth-ach are very troubleſome ſymptoms of pregnancy. The former may be generally removed by keeping the body gently open, by the uſe of prunes, figs, roaſted apples, and ſuch like. When the pain is very violent, bleeding may be neceſſary. For the treatment of the latter, we muſt refer to that article. Several other complaints incident to pregnant women might be mentioned, as a cough and difficulty of breathing, ſuppreſſion and incontinency of urine, &c.; but as all of theſe have been taken notice of before, it is needleſs to repeat them.

Every pregnant woman is more or leſs in danger of abortion. This ſhould be guarded againſt with the greateſt care, as it not only weakens the conſtitution, but

but renders the woman liable to the ſame misfortune afterwards*. Abortion may happen at any period of pregnancy, but it is moſt common in the ſecond or third month. Sometimes, however, it happens in the fourth or fifth. If it happens within the firſt month, it is uſually called a falſe conception; if after the ſeventh month, the child may often be kept alive by proper care.

The common cauſes of abortion are, the death of the child; weakneſs or relaxation of the mother; great evacuations; violent exerciſe; raiſing great weights; reaching too high; jumping, or ſtepping from an eminence; vomiting; coughing; convulſion fits; blows on the belly; falls; fevers; diſagreeable ſmells; exceſs of blood; indolence; high living, or the contrary; violent paſſions or affections of the mind, as fear, grief, &c.

The ſigns of approaching abortion are, pain in the loins, or about the bottom of the belly; a dull heavy pain in the inſide of the thighs; a ſlight degree of coldneſs, or ſhivering; ſickneſs, palpitation of the heart; the breaſts become flat and ſoft; the belly falls; and there is a diſcharge of blood or watery humours from the womb.

To prevent abortion, we would adviſe women of a weak or relaxed habit to uſe ſolid food, avoiding great quantities of tea, and other weak and watery liquors; to riſe early and go ſoon to bed;

* Every mother who procures an abortion does it at the hazard of her life; yet there are not a few who run this riſk merely to prevent the trouble of bearing and bringing up children. It is ſurely a moſt unnatural crime, and cannot, even in the moſt abandoned be viewed without horror; but in the decent matron, it is ſtill more unpardonable.—Thoſe wretches who daily advertiſe their aſſiſtance to women in this buſineſs, deſerve, in my opinion, the moſt ſevere of all human puniſhments.

to ſhun damp houſes; to take frequent exerciſe in the open air, but to avoid fatigue; and never to go abroad in damp foggy weather, if they can avoid it.

Women of a full habit ought to uſe a ſpare diet, avoiding ſtrong liquors, and every thing that may tend to heat the body, or increaſe the quantity of blood. Their diet ſhould be of an opening nature, conſiſting principally of vegetable ſubſtances. Every woman with child ought to be kept cheerful and eaſy in her mind. Her appetite, even though depraved, ought to be indulged as far as prudence will permit.

When any ſigns of abortion appear, the woman ought to be laid on a bed or mattreſs, with her head low. She ſhould be kept quiet, and her mind ſoothed and comforted. She ought not to be kept too hot, nor to take any thing of a heating nature. Her food ſhould conſiſt of broths, rice and milk, jellies, gruels made of oat-meal, and the like, all of which ought to be taken cold.

If ſhe be able to bear it, ſhe ſhould loſe at leaſt half a pound of blood from the arm. Her drink ought to be barley-water, ſharpened with juice of lemon; or ſhe may take fifteen grains of powdered nitre, in a cup of water-gruel, every two or three hours. If ſeized with a violent looſeneſs, ſhe ought to drink the decoction of calcined hartſhorn prepared. If ſhe be affected with vomiting, let her take frequently two table-ſpoonfuls of the ſaline mixture. In general, opiates are of ſervice; but they ſhould always be given with caution.

Sanguine robuſt women, who are liably to miſcarry at a certain time of pregnancy, ought always to be bled a few days before that period arrives. By this means, and obſerving the regimen above preſcribed, they might often eſcape that misfortune.

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Though we recommend due care for preventing abortion, we would not be underſtood as reſtraining pregnant women from their uſual exerciſes. This would generally operate the quite contrary way. Want of exerciſe not only relaxes the body, but induces a plethora, or too great a fulneſs of the veſſels, which are the two principal cauſes of abortion. There are, however, ſome women of ſo delicate a texture, that it is neceſſary for them to avoid almoſt every kind of exerciſe during the whole period of pregnancy.

OF CHILD-BIRTH.

Many diſeaſes proceed from the want of due care in child-bed; and the more hardy part of the ſex are moſt apt to deſpiſe the neceſſary precautions in this ſtate. This is peculiarly the caſe with young wives. They think, when the labour-pains are ended, the danger is over; but in truth it may only then be ſaid to be begun. Nature, if left to herſelf, will ſeldom fail to expel the *fœtus;* but proper care and management are certainly neceſſary for the recovery of the mother. No doubt miſchief may be done by too much as well as by too little care. Hence, females who have the greateſt number of attendants in child-bed, generally recover worſt. But this is not peculiar to the ſtate of child-bed. Exceſſive care always defeats its own intention, and is generally more dangerous than none at all*.

* Though the management of women in child-bed has been practiſed as an employment ſince the earlieſt accounts of time; yet it is ſtill, in moſt countries, on a very bad footing. Few women think of following this employment till they are reduced to the neceſſity of doing it for bread. Hence, not one in an hundred of them have any education, or proper knowledge of their buſineſs. It is true, that Nature, if left to herſelf, will gene-

rally

During actual labour, nothing of a heating nature ought to be given. The woman may now and then take a little panada, and her drink ought to be toaſt and water, or thin oatmeal-gruel. Spirits, wines, cordial-waters, and other things which are given with a view to ſtrengthen the mother, and promote the birth, for the moſt part, tend only to increaſe the fever, inflame the womb, and retard the labour. Beſides, they endanger the woman afterwards, as they often occaſion violent and mortal hæmorrhages, or diſpoſe her to eruptive and other fevers.

When the labour proves tedious and difficult, to prevent inflammations, it will be proper to bleed. An emollient clyſter ought likewiſe to be adminiſtered. The paſſage ought to be gently rubbed with a little lard or freſh butter. Theſe directions are ſufficient in natural labours; and in all preternatural caſes, a ſkilful ſurgeon, or man-midwife, ought to be called as ſoon as poſſible.

After delivery, the woman ought to be kept as quiet and eaſy as poſſible*. Her food ſhould be

rally expel the *fœtus*; but it is equally true, that moſt women in child-bed require to be managed with ſkill and attention, and that they are often hurt by the ſuperſtitious prejudices of ignorant and officious midwives. The miſchief done in this way is much greater than is generally imagined; moſt of which might be prevented, by allowing no woman to practice midwifery but ſuch as are properly qualified. Were due attention paid to this, it would not only be the means of ſaving many lives, but would prevent the neceſſity of employing men in this indelicate and diſagreeable branch of medicine, which is, on many accounts, more proper for the other ſex.

* We cannot help taking notice of that ridiculous cuſtom which ſtill prevails, in ſome parts of the country, of collecting a number of women together upon ſuch occaſions. Theſe, inſtead of being uſeful, ſerve only to crowd the houſe, and obſtruct the neceſſary attendants. Beſides, they hurt the patient with their noiſe; and often, by their untimely and impertinent advice, do much miſchief.

light

light and thin, as gruel, panada, &c. and her drink weak and diluting. To this rule, however, there may be exceptions.

Sometimes an exceſſive hæmorrhage or flooding happens after delivery. In this caſe the patient ſhould be laid with her head low, kept cool, and be in all reſpects treated as for an exceſſive flux of the *menſes*. If the flooding proves violent, linen cloths, which have been wrung out of a mixture of equal parts of vinegar and water, or red wine, ſhould be applied to the belly, the loins, and the thighs: theſe muſt be changed as they grow dry; and may be diſcontinued as ſoon as the flooding abates*.

If there be violent pains after delivery, the patient ought to take one or two opium pills†.

An inflammation of the womb is a dangerous diſeaſe, after delivery. It is known by pains in the lower part of the belly, which are greatly increaſed upon touching it; by the tenſion or tightneſs of the parts; great weakneſs; change of countenance; a conſtant fever, with a weak and hard pulſe; a ſlight *delirium* or raving; ſometimes inceſſant vomiting; an hiccup; a diſcharge of reddiſh, ſtinking, ſharp water from the womb; an inclination to go frequently to ſtool; a heat, and ſometimes total ſuppreſſion of urine.

This muſt be treated like other inflammatory diſorders, by bleeding and plentiful dilution. The drink

* In a violent flooding after delivery, I have ſeen very good effects from the following mixture: Take of penny-royal water, ſimple cinnamon-water, and ſyrup of poppies, each two ounces, elixir of vitriol a drachm. Mix, and take two table ſpoonfuls every two hours, or oftener, if neceſſary.

When the patient is low-ſpirited, or troubled with hyſterical complaints, ſhe ought to take frequently twelve or fifteen drops of the tincture of aſafœtida, in a cup of penny-royal tea.

† See Appendix, *Opium Pills*.

may be thin gruel or barley-water; in a cup of which half a drachm of nitre may be diſſolved, and taken three or four times a-day. Clyſters of warm milk and water muſt be frequently adminiſtered; and the belly ſhould be fomented by cloths wrung out of warm water; or apply bladders filled with milk and water to it.

A ſuppreſſion of the *lochia*, or uſual diſcharges after delivery, and the milk-fever, muſt be treated nearly in the ſame manner as an inflammation of the womb. In all theſe caſes, the ſafeſt courſe is plentiful dilution, gentle evacuations, and fomentations of the parts affected. In the milk-fever, the breaſts may be embrocated with a little warm linſeed-oil, or the leaves of cabbage may be applied to them. The child ſhould be often put to the breaſt, or it ſhould be drawn by ſome other perſon.

Nothing would tend more to prevent the milk-fever than putting the child early to the breaſt. The cuſtom of not allowing children to ſuck for the firſt two or three days, is contrary to Nature and common ſenſe, and is very hurtful both to the mother and child*.

Every mother who has milk in her breaſts, ought either to ſuckle her own child, or to have her breaſts frequently drawn, at leaſt for the firſt month. This would prevent many of the diſeaſes which prove fatal to women in child-bed.

When an inflammation happens in the breaſt, attended with redneſs, hardneſs, and other ſymptoms of ſuppuration, the ſafeſt application is a poultice of bread and milk, ſoftened with oil or freſh butter. This may be renewed twice a day, till the tumor be either diſcuſſed or brought to ſuppuration. The uſe

* The child ſhould be put to the breaſt within twenty-four hours after delivery.

of repellents, in this caſe, is very dangerous; they often occaſion fevers, and ſometimes cancers*.

When the nipples are fretted and chapt, they may be anointed with a mixture of oil and bees-wax, or a little powdered gum-arabic may be ſprinkled on them. I have ſeen Hungary water applied to the nipples have a very good effect. Should the complaint prove obſtinate, a cooling purge may be given, which generally removes it †.

The miliary fever is a diſeaſe incident to women in child-bed; but as it has been treated of already, we ſhall take no further notice of it. The celebrated Hoffmann obſerves, That this fever of child-bed women might generally be prevented, if during their pregnancy, they were regular in their diet, uſed moderate exerciſe, took now and then a gentle laxative of manna, rhubarb, or cream of tartar; not forgetting to bleed in the firſt months, and avoid all ſharp air. When the labour is coming on, it is not to be haſtened with forcing medicines, which inflame the blood and humors, or put them into unnatural commotions. Care ſhould be taken, after the birth, that the natural excretions proceed regularly; and if the pulſe be quick, a little nitrous powder, or ſome other cooling medicines, ſhould be adminiſtered.

The moſt fatal diſorder conſequent upon delivery is the *puerperal*, or child-bed fever. It generally makes its attack upon the ſecond or third day after delivery. Sometimes indeed it comes on ſooner, and at other times, though rarely, it does not appear before the fifth or ſixth day.

* As it is better to prevent than to cure a diſeaſe, much good may be done by bleeding in theſe caſes when the pulſe will bear it.

† To *prevent* ſore nipples, they ſhould be waſhed twice a-day with brandy for a month or ſix weeks, previous to the lying-in.

It begins, like moſt other fevers, with a cold or ſhivering fit, which is ſucceeded by reſtleſſneſs, pain of the head, great ſickneſs at ſtomach, and bilious vomiting. The pulſe is generally quick, the tongue dry, and there is a remarkable depreſſion of ſpirits and loſs of ſtrength. A great pain is uſually felt in the back, hips, and region of the womb; a ſudden change in the quantity or quality of the *lochia* alſo takes place; and the patient is frequently troubled with a *teneſmus*, or conſtant inclination to go to ſtool. The urine, which is very high coloured, is diſcharged in ſmall quantity, and generally with pain. The belly ſometimes ſwells to a conſiderable bulk, and becomes ſuſceptible of pain from the ſlighteſt touch. When the fever has continued for a few days, the ſymptoms of inflammation uſually ſubſide, and the diſeaſe acquires a more putrid form. At this period, if not ſooner, a bilious or putrid looſeneſs, of an obſtinate and dangerous nature, comes on, and accompanies the diſeaſe through all its future progreſs.

There is not any diſeaſe that requires to be treated with more ſkill and attention than this; conſequently the beſt aſſiſtance ought always to be obtained as ſoon as poſſible. In women of plethoric conſtitutions, bleeding will generally be proper at the beginning; it ought however to be uſed with caution, and not to be repeated unleſs where the ſigns of inflammation riſe high; in which caſe it will alſo be neceſſary to apply a bliſtering plaſter to the region of the womb.

During the rigor, or cold fit, proper means ſhould be uſed to abate its violence, and ſhorten its duration. For this purpoſe the patient may drink freely of warm diluting liquors, and if low, may take now and then a cup of wine-whey; warm applications to the extremities, as heated bricks, bottles or bladders filled with warm water, may alſo be uſed with advantage.

Emollient clyſters of milk and water, or of chicken water, ought to be frequently adminiſtered through the courſe of the diſeaſe. Theſe prove beneficial by promoting a diſcharge from the inteſtines, and alſo by acting as a fomentation to the womb and parts adjacent. Great care, however, is requiſite in giving them, on account of the tenderneſs of the parts in the *pelvis* at this time.

To evacuate the offending bile from the ſtomach, a vomit is generally given.

The medicine which I have always found to ſucceed beſt in this diſeaſe is the ſaline draught. This, if frequently repeated, will often put a ſtop to the vomiting, and at the ſame time leſſen the violence of the fever. If it runs off by ſtool, or if the patient be reſtleſs, a few drops of laudanum may occaſionally be added.

If the ſtools ſhould prove ſo frequent as to weaken and exhauſt the patient, a ſtarch clyſter, with thirty or forty drops of laudanum in it, may be adminiſtered as occaſion ſhall require; and the drink may be rice-water, in every pint of which half an ounce of gum arabic has been diſſolved. Should theſe fail, recourſe muſt be had to Columbo-root, or ſome other ſtrong aſtringent.

Though in general the food ought to be light, and the drink diluting, yet when the diſeaſe has been long protracted, and the patient is greatly ſpent by evacuations, it will be neceſſary to ſupport her with nouriſhing diet and generous cordials.

It was obſerved that this fever, after continuing for ſome time, often acquires a putrid form. In this caſe the Peruvian bark muſt be given, either by itſelf, or joined with cordials, as circumſtances may require. As the bark in ſubſtance will be apt to purge, it may be given in decoction or infuſion mixed with the tincture

tincture of roſes, or other gentle aſtringents ; or, a ſcruple of the extract of bark with half an ounce of ſpirituous cinnamon-water, two ounces of common water, and ten drops of laudanum, may be made into a draught, and given every ſecond, third, or fourth hour, as ſhall be found neceſſary.

When the ſtomach will not bear any kind of nouriſhment, the patient may be ſupported for ſome time by clyſters of beef-tea, or chicken-water.

To avoid this fever, every woman in child-bed ought to to kept perfectly eaſy ; her food ſhould be light and ſimple, and her bed-chamber cool, and properly ventilated. *There is not any thing more hurtful to a woman in this ſituation than being kept too warm.* She ought not to have her body bound too tight, nor to riſe too ſoon from bed, after delivery ; catching cold is alſo to be avoided ; and a proper attention ſhould be paid to cleanlineſs.

To prevent the milk fever, the breaſts ought to be frequently drawn ; and if they are filled previous to the onſet of a fever, they ſhould, upon its firſt appearance, be drawn, to prevent the milk from becoming acrid, and its being abſorbed in this ſtate. Coſtiveneſs is likewiſe to be avoided. This will be beſt effected by the uſe of mild clyſters and a laxative diet.

We ſhall conclude our obſervations on child-bed women by recommending it to them above all things to beware of cold. Poor women, whoſe circumſtances oblige them to quit their bed too ſoon, often contract diſeaſes from cold, of which they never recover. It is a pity the poor are not better taken care of in this ſituation.

But women in more affluent circumſtances run the greateſt hazard from too much heat. They are generally kept in a ſort of bath for the firſt eight or

ten days and then dreſſed out to ſee company. The danger of this conduct muſt be obvious to every one*.

The ſuperſtitious cuſtom of obliging women to keep the houſe till they go to church, is likewiſe a very common cauſe of catching cold. All churches are damp and moſt of them cold; conſequently they are the very worſt places to which a woman can go to make her firſt viſit, after having been confined in a warm room for a month.

OF BARRENNESS.

Barrenneſs may be very properly reckoned among the diſeaſes of females, as few married women who have not children enjoy a good ſtate of health. It may proceed from various cauſes, as high living, grief, relaxation, &c. but it is chiefly owing to an obſtruction or irregularity of the menſtrual flux.

It is very certain that high living vitiates the humors and prevents fecundity. We ſeldom find a barren woman among the labouring poor, while nothing is more common among the rich and affluent. The inhabitants of every country are prolific in proportion to their poverty; and it would be an eaſy matter to adduce many inſtances of woman, who, by being reduced to live entirely upon a milk and vegetable diet, have conceived and brought forth children, though they never had any before. Would the rich uſe the ſame ſort of food and exerciſe as the better ſort of peaſants, they would ſeldom have cauſe to envy the poor the bleſſings of a numerous and healthy offspring, while they pine in ſorrow for want of even a ſingle heir to their extenſive domains.

* And it were much to be wiſhed that this cuſtom was entirely ſet aſide.

Affluence begets indolence, which not only vitiates the humors, but induces a general relaxation of the folids; a ftate highly unfavourable to fruitfulnefs. To remove this, we would recommend the following courfe: Firft, fufficient exercife in the open air; fecondly, a diet confifting chiefly of milk and vegetables; thirdly, the ufe of aftringent medicines, as fteel, alum, elixir of vitriol, the Chalybeate waters, Peruvian bark, &c.; and laftly, above all, the cold bath.

Barrennefs is often the confequence of grief, fudden fear, anxiety, or any of the paffions which tend to obftruct the menftrual flux. When barrennefs is fufpected to proceed from affections of the mind, the perfon ought to be kept as eafy and cheerful as poffible.

CHAP. XLIX.

Difeafes of Children.

MISERABLE indeed is the lot of man in the ftate of infancy! He comes into the world more helplefs than any other animal, and ftands much longer in need of the protection and care of his parents; but, alas! this care is not always beftowed upon him; and when it is, he often fuffers as much from improper management as he would have done from neglect. Hence the officious care of parents, nurfes, and midwives, becomes one the moft fruitful fources of the diforders of infants*.

* Of the officious and ill judged care of midwives, we fhall adduce only one inftance, viz. the common practice of torturing

It muſt be obvious to every attentive perſon, that the firſt diſeaſes of infants ariſe chiefly from their bowels. Nor is this in the leaſt to be wondered at, as they are in a manner poiſoned with indigeſtible drugs and improper diet as ſoon as they come into the world. Every thing that the ſtomach cannot digeſt may be conſidered as a poiſon; and unleſs it can be thrown up, or voided by ſtool, it muſt occaſion ſickneſs, gripes, ſpaſmodic affections of the bowels, or what the good women call inward fits, and at laſt convulſions and death.

As theſe ſymptoms evidently ariſe from ſomewhat that irritates the inteſtines, doubtleſs the proper method of cure muſt be to expel it as ſoon as poſſible. The moſt ſafe and effectual method of doing this, if the child be coſtive, is by a gentle purge; for this purpoſe, ſome manna may be diſſolved in boiling water, and given in ſmall quantities till it operates; or, what will anſwer rather better, a few grains of *magneſia alba* and rhubarb may be mixed in any kind of food that is given to the child, and continued till it has the deſired effect. If theſe medicines be properly adminiſtered, and the child's belly and limbs frequently rubbed with a warm hand before the fire, they will ſeldom

ring infants by ſqueezing their breaſts, to draw off the milk, as they call it. Though a ſmall quantity of moiſture is generally found in the breaſts of infants, yet, as they are certainly not intended to give ſuck, this ought never to be drawn off. I have ſeen this cruel operation bring on hardneſs, inflammation, and ſuppuration of the breaſts; but never knew any ill conſequences from its being omitted. When the breaſts are hard, the only application that we would recommend is a ſoft poultice, or a little of the diachylon plaſter, ſpread thin upon a bit of ſoft leather, about the ſize of half a crown, and applied over each nipple. Theſe may be ſuffered to continue till the hardneſs diſappears.

fail to relieve thoſe affections of the ſtomach and bowels from which infants ſuffer ſo much.

Theſe general directions include moſt of what can be done for relieving the internal diſorders of infants. They will likewiſe go a conſiderable way in alleviating thoſe which appear externally, as the raſh, *gum*, &c. Theſe, as was formerly obſerved, are principally owing to too hot a regimen, and conſequently will be moſt effectually relieved by gentle evacuations. *Indeed, evacuations of one kind or other conſtitute a principal part of the medicine of infants, and will ſeldom, if adminiſtered with prudence, in any of their diſeaſes, fail to give relief.*

OF THE MECONIUM.

The ſtomach and bowels of a new born infant are filled with a blackiſh-coloured matter of the conſiſtence of ſyrup, commonly called the *meconium*. This is generally paſſed ſoon after the birth, by the mere effort of Nature; in which caſe it is not neceſſary to give the infant any kind of medicine. But if it ſhould be retained, or not ſufficiently carried off, a little manna *magneſia alba* or rhubarb may be given, as mentioned above; or, if theſe ſhould not be at hand, a table ſpoonful of whey, ſweetened with a little honey, or brown ſugar, will anſwer the purpoſe.

The moſt proper medicine for expelling the *meconium* is the mother's milk, which is always at firſt of a purgative quality. Were children allowed to ſuck as ſoon as they ſhew an inclination for the breaſt, they would ſeldom have occaſion for medicines to diſcharge the *meconium*.

THE

THE APHTHÆ OR THRUSH.

The aphthæ are little whitiſh ulcers affecting the whole inſide of the mouth, tongue, throat, and ſtomach of infants. Sometimes they reach through the whole inteſtinal canal; in which caſe they are very dangerous.

If the aphthæ are of a pale colour, pellucid, few in number, ſoft, ſuperficial, and fall eaſily off, they are not dangerous; but if opake, yellow, brown, black, thick, or running together, they ought to be dreaded.

It is thought that the aphthæ owe their origin to acid humors; we have reaſon however to believe, they are generally owing to too hot a regimen both of the mother and child. We too often find the child doſed with wine, punch, cinnamon-waters, or ſome other hot and inflaming liquors, almoſt as ſoon as it is born. It is well known that theſe will occaſion inflammatory diſorders even in adults; is it any wonder then they ſhould heat and inflame the tender bodies of infants, and ſet as it were the whole conſtitution in a blaze?

The moſt proper medicines for the aphthæ are vomits, ſuch as have been already recommended, and gentle laxative. Five grains of rhubarb and half a drachm of *magneſia alba* may be rubbed together, and divided into ſix doſes, one of which may be given to the infant every four or five hours till they operate. Theſe powders may either be given in the child's food, or a little of the ſyrup of pale roſes, and may be repeated as often as is found neceſſary to keep the body open. It is common in this caſe to adminiſter calomel, which is more effectual than any other medicine.

Many things have been recommended for gargling the mouth and throat in this diſeaſe; but it is not eaſy to apply theſe in very young infants; we would therefore recommend it to the nurſe to rub the child's mouth frequently with a little borax and honey; or with the following mixture: Take fine honey an ounce, borax a drachm, burnt alum half a drachm, roſe-water two drachms; mix them together. A very proper application in this caſe, is a ſolution of ten or twelve grains of white vitriol in eight ounces of barley-water. Theſe may be applied with the finger, or by means of a bit of ſoft rag wrapped round the finger.

OF ACIDITIES.

The food of children being for the moſt part of an aceſcent nature, it readily turns ſour upon the ſtomach, eſpecially if the body be any way diſordered. Hence moſt diſeaſes of children are accompanied with evident ſigns of acidity, as green ſtools, gripes, &c. Theſe appearances have induced many to believe, that all the diſeaſes of children were owing to an acid abounding in the ſtomach and bowels; but whoever conſiders the matter attentively, will find that theſe ſymptoms of acidity are oftener the effect than the cauſe of their diſeaſes.

Nature evidently intended, that the food of children ſhould be aceſcent; and unleſs the body be diſordered, or the digeſtion hurt, from ſome other cauſe, we will venture to ſay, that the aceſcent quality of their food is ſeldom injurious to them. Acidity, however, is often a ſymptom of diſorders in children, and, as it is ſometimes a troubleſome one, we ſhall point out the method of relieving it.

When

When green ſtools, gripes, purgings, ſour ſmells, &c. ſhew that the bowels abound with an acid, the child ſhould have a little clear broth, with light white bread in it; and ſhould have ſufficient exerciſe in order to promote the digeſtion. It has been cuſtomary in this caſe to give the pearl-julep, chalk, crabs eyes, and other teſtaceous powders. Theſe, indeed, by their abſorbent quality, may correct the acidity; but they are attended with this inconvenience, that they are apt to lodge in the bowels, and occaſion coſtiveneſs, which may prove hurtful to the infant. For this reaſon they ſhould never be given unleſs mixed with purgative medicines; as rhubarb, manna, or ſuch like.

The beſt medicine which we know, in all caſes of acidity, is that fine inſipid powder called *magneſia alba*. It purges, and at the ſame time corrects the acidity: by which means it not only removes the diſeaſe, but carries off its cauſe. It may be given in any kind of food, or in a mixture, as recommended in the Appendix*.

When an infant is troubled with gripes, it ought never to be doſed with brandy, ſpiceries, and other hot things, but ſhould have its body opened with an emollient clyſter, or the medicine mentioned above; and at the ſame time a little brandy may be rubbed on its belly with a warm hand before the fire. I have ſeldom ſeen this fail to eaſe the gripes of infants. Strong fennel-ſeed tea, ſweetened with molaſſes, is a very uſeful medicine here.

GALLING AND EXCORIATION.

Theſe are very troubleſome to children. They happen chiefly about the groin and wrinkles of the

* See Appendix, *Laxative Abſorbent Mixture*

neck, under the arms, behind the ears, and in other parts that are moiſtened by the ſweat or urine.

As theſe complaints are, in a great meaſure, owing to want of cleanlineſs, the moſt effectual means of preventing them are, to waſh the parts frequently with cold water, to change the linen often, and, in a word, to keep the child in all reſpects thoroughly clean. When this is not ſufficient, the excoriated parts may be ſprinkled with abſorbent or drying powders; as prepared chalk, ſtarch-powder, and the like. When the parts affected are very ſore, and tend to a real ulceration, it will be proper to anoint the place with Goulard's cerate. If the parts be waſhed with ſpring-water, in which a little white vitriol has been diſſolved, it will dry and heal them very powerfully. One of the beſt applications for this purpoſe, is to diſſolve ſome fuller's earth in a ſufficient quantity of hot water; and after it has ſtood till it is cold, to rub it gently upon the galled parts once or twice a-day.

STOPPAGE OF THE NOSE.

The noſtrils of infants are often plugged up with a groſs *mucus*, which prevents their breathing freely, and likewiſe renders it difficult for them to ſuck or ſwallow.

Some in this caſe order, after a ſuitable purge, two or three grains of white vitriol diſſolved in half an ounce of water, and filtered, to be applied now and then to the noſtrils with a linen rag. Wedelius ſays, if two grains of white vitriol, and the ſame quantity of *elaterium*, be diſſolved in half an ounce of marjoram-water, and applied to the noſe, as above directed, that it brings away the *mucus* without ſneezing.

In

In obſtinate caſes theſe medicines may be tried; but I have never found any thing neceſſary, beſides rubbing and introducing into the noſe at bed-time a little ſweet-oil, or freſh butter. This reſolves the filth, and renders the breathing more free.

OF VOMITING.

From the delicate ſtate of children, and the great ſenſibility of their organs, a vomiting or looſeneſs may be induced by any thing that irritates the nerves of the ſtomach or inteſtines. Hence theſe diſorders are much more common in childhood than in the more advanced periods of life. They are ſeldom, however, dangerous, and ought never to be conſidered as diſeaſes, unleſs when they are violent, or continue ſo long as to exhauſt the ſtrength of the patient.

Vomiting may be excited by an over-quantity of food; by food that is of ſuch a nature as to irritate the nerves of the ſtomach too much; or by the ſenſibility of the nerves being ſo much increaſed as to render them unable to bear the ſtimulus of even the mildeſt element.

When vomiting is occaſioned by too much food, it ought to be promoted, as the cure will depend upon cleanſing the ſtomach. This may be done either by a few grains of ipecacuanha, or a weak ſolution of emetic tartar, as mentioned before. When it is owing to food of an acrid or irritating quality, the diet ought to be changed, and aliment of a milder nature ſubſtituted in its ſtead.

When vomiting proceeds from an increaſed degree of ſenſibility, or too great an irritability of the nerves of the ſtomach, ſuch medicines as have a tendency to brace and ſtrengthen that organ, and to abate its ſenſibility, muſt be uſed. The firſt of theſe intentions

intentions may be anſwered by a ſlight infuſion of the Peruvian bark, with the addition of a little rhubarb and orange-peel; and the ſecond by the ſaline draughts, to which a few drops of liquid laudanum may be occaſionally added.

In obſtinate vomiting the operation of internal medicines may be aſſiſted by aromatic fomentations made with wine, applied warm to the pit of the ſtomach; or the uſe of the ſtomach-plaſter, with the addition of a little *Theriaca*.

OF A LOOSENESS.

A looſeneſs may generally be reckoned ſalutary when the ſtools are ſour, ſlimy, green, or cruddled. It is not the diſcharge, but the cauſe of ſuch ſtools, which ought to be remedied. Even where the purging is thin and watery, it ought not to be checked too ſuddenly, as it often proves critical, eſpecially when the child has caught cold, or an eruption on the ſkin has diſappeared. Sometimes an evacuation of this kind ſucceeds an humid ſtate of the atmoſphere, in which caſe it may alſo prove of advantage, by carrying off a quantity of watery humors which would otherwiſe tend to relax the habit.

As the principal intention of the cure of a looſeneſs is to evacuate the offending matter, it is cuſtomary to give the patient a gentle vomit of ipecacuanha, and afterwards to exhibit ſmall and frequent doſes of rhubarb; interpoſing abſorbent medicines to mitigate the acrimony of the humors. The beſt purge, however, in this caſe, is *magneſia alba*. It is at the ſame time abſorbent and laxative, and operates without exciting gripes.

The antimonial wine, which acts both as an emetic and purge, is alſo an excellent medicine in this caſe,

caſe. By being diluted with water, it may be proportioned to the weakeſt conſtitution; and, not being diſagreeable to the palate, it may be repeated as often as occaſion requires. Even one doſe will frequently mitigate the diſeaſe, and pave the way for the uſe of abſorbents. If, however, the patient's ſtrength will permit, the medicine ought to be repeated every ſix or eight hours, 'till the ſtools begin to aſſume a more natural appearance; afterwards a longer ſpace may be allowed to intervene between the doſes. When it is neceſſary to repeat the medicine frequently, the doſe ought always to be a little increaſed, as its efficacy is generally diminiſhed by uſe.

Some, upon the firſt appearance of a looſeneſs, fly immediately to the uſe of abſorbent medicines and aſtringents. If theſe be adminiſtered before the offending humors are diſcharged, though the diſeaſe may appear to be mitigated for a little time, it ſoon afterwards breaks forth with greater violence, and often proves fatal. After proper evacuations, however, theſe medicines may be adminiſtered with conſiderable advantage.

Should any gripings or reſtleſſneſs remain after the ſtomach and bowels have been cleanſed, a tea-ſpoonful of the ſyrup of poppies may be given in a little ſimple cinnamon-water, three or four times a-day till theſe ſymptoms have ceaſed.

OF ERUPTIONS.

Children, while on the breaſt, are ſeldom free from eruptions of one kind or other. Theſe, however, are not often dangerous, and ought never to be dried up but with the greateſt caution. They tend to free the bodies of infants from hurtful humors, which, if retained, might produce fatal diſorders.

The

The eruptions of children are chiefly owing to improper food and neglect of cleanlineſs. If a child be ſtuffed at all hours with food that its ſtomach is not able to digeſt, ſuch food, not being properly aſſimilated, inſtead of nouriſhing the body, fills it with groſs humors. Theſe muſt either break out in form of eruptions upon the ſkin, or remain in the body, and occaſion fevers and other internal diſorders. That neglect of cleanlineſs is a very general cauſe of eruptive diſorders, muſt be obvious to every one. The children of the poor, and of all who deſpiſe cleanlineſs, are almoſt conſtantly found to ſwarm with vermin, and are generally covered with the ſcab, itch, and other eruptions.

When eruptions are the effect of improper food, or want of cleanlineſs, a proper attention to theſe alone will generally be ſufficient to remove them. If this ſhould not be the caſe, ſome drying medicines will be neceſſary. When they are applied, the body ought at the ſame time to be kept open, and cold is carefully to be avoided. We know no medicine that is more ſafe for drying up cutaneous eruptions than ſulphur, provided it be prudently uſed. A little of the flour of ſulphur may be mixed with freſh butter, oil, or hog's lard, and the parts affected frequently touched with it.

The moſt obſtinate of all the eruptions incident to children are, the *tinea capitis*, or ſcabbed head, and chilblains. The ſcabbed head is often exceedingly difficult to cure, and ſometimes indeed the cure proves worſe than the diſeaſe. I have frequently known children ſeized with internal diſorders, of which they died ſoon after their ſcabbed heads had been healed by the application of drying medicines*.

* I ſome time ago ſaw a very ſtriking inſtance of the danger of ſubſtituting drying medicines in the place of cleanlineſs and wholeſome food, in the Foundling Hoſpital at Ackworth, where the children were grievouſly afflicted with ſcabbed heads and other

The cure ought always firſt to be attempted by keeping the head very clean, cutting off the hair, combing and bruſhing away the ſcabs, &c. If this is not ſufficient, let the head be ſhaved once a-week, waſhed daily with ſoap-ſuds, and gently anointed with the citrine ointment†. While theſe things are doing, the patient muſt be confined to a regular light diet, the body ſhould be kept gently open; and cold, as far as poſſible, ought to be avoided. To prevent any bad conſequences from ſtopping this diſcharge, it will be proper, eſpecially in children of a groſs habit, to make an iſſue in the neck or arm, which may be kept open till the patient becomes more ſtrong, and the conſtitution be ſomewhat mended.

Chilblains commonly attack children in cold weather. They are generally occaſioned by the feet or hands being kept long wet or cold, and afterwards ſuddenly heated. When children are cold, inſtead of taking exerciſe to warm themſelves gradually, they run to the fire.

To prevent it, violent cold and ſudden heat muſt be equally avoided. When the parts begin to look red and ſwell, the patient ought to be purged and to have the affected parts frequently rubbed with Goulard's

other cutaneous diſorders. Upon inquiry it was found, that very little attention was paid either to the propriety or ſoundneſs of their proviſions, and that cleanlineſs was totally neglected; accordingly it was adviſed, that they ſhould have more wholeſome food, and be kept thoroughly clean. This advice, however was not followed. It was too troubleſome to the ſervants, ſuperintendants, &c. The buſineſs was to be done by medicine; which was accordingly attempted, but had nearly proved fatal to the whole houſe. Fevers and other internal diſorders immediately appeared, and at length a putrid dyſentery, which proved ſo infectious, that it carried off a great many of the children, and ſpread over a conſiderable part of the neighbouring country.

† See Appendix, *Citrine Ointment.*

cerate.

cerate. They ought likewiſe to be covered with flannel, and kept warm and dry. Some apply warm aſhes between cloths to the ſwelled parts, which frequently help to reduce them. When there is a ſore, it muſt be dreſſed with Goulard's cerate, Turner's cerate, the ointment of tutty, or the tar ointment, which is made by melting one table-ſpoonful of tar with four table-ſpoonfuls of tallow. Theſe ſores are indeed troubleſome, but ſeldom dangerous. They generally heal as ſoon as the warm weather ſets in.

OF THE CROUP OR HIVES.

This diſeaſe is called the Croup in many parts of Scotland, and it is thus ſtiled by moſt of the Britiſh medical writers. In America it is moſt generally known by the name of the Hives, although ſeveral eruptive diſeaſes, particularly the nettle raſh are improperly ſo called; moreover, ſo great is the dread of this diſeaſe, that almoſt every catarrh in young children has been ſuſpected for it. As it is of great conſequence to be able to diſtinguiſh this complaint, we ſhall be more full in our account of it.

The diſeaſe more ſtrictly called the hives or croup generally attacks children under ſix years of age, but it may occur at any time of life. The child is firſt drooping for a few days, neither ſick nor well, perhaps ſome ſlight ſymptoms of a cold, when the diſeaſe ſuddenly increaſes, the voice particularly, and breathing are changed. This laſt becomes quick, and during reſpiration the air paſſes through the wind-pipe in ſuch a manner as to make an indeſcribable noiſe ſaid to reſemble the crowing of a cock, but with more propriety it may be likened to the noiſe produced by air forced through a narrow tube whoſe ſides are very hard; this noiſe continues to the

laſt: ſometimes the phlegm will appear to rattle, as if looſe; the face is generally flushed, the countenance diſtreſſed, the noſtrils expanded, the head thrown back: indeed the patient cannot lie down, and is very reſtleſs; continually ſeeking for eaſe from a change of poſture. More or leſs cough, and fever attend; the pulſe varying, but generally quick; the bowels moſtly coſtive; the face and hands now become livid; the ſkin often moiſt, from the agony the patient is in.

Theſe ſymptoms continue to the laſt, when the patient appears to ſink under ſuffocation and debility. A little momentary eaſe, however, will often produce ſuch an alleviation of the ſymptoms, as to give riſe to the moſt flattering hopes; but theſe ſhould never induce us to remit our exertions, for it is ſo common to be called to this diſeaſe, after it has made a conſiderable progreſs, that there is not a moment to be loſt.

Some other diſeaſes appear to terminate fatally in this, more eſpecially the rheumatiſm, pleuriſy, ſmall-pox, meaſles, and ſcarlet fever, or putrid ſore throat, as it is called. It is worthy of remark, that the *moſt* dangerous ſpecies of hives is that which ſucceeds to other diſeaſes, and therefore it requires the moſt ſpeedy application of powerful remedies.

This I would denominate the *true hives*. But there is another diſeaſe highly dangerous, which has generally been called by the ſame name—its ſymptoms are as follows:

It attacks children of the ſame age as before-mentioned, more eſpecially ſuch as are of a groſs, plump habit of body, after expoſure to cold or wet, the ſtriking in of eruptions, eating indigeſtible food, &c. They are generally ſeized when in the higheſt health, moſtly in the night; it begins with very laborious reſpiration, flushed face, and ſomething of a croaking noiſe, but more reſembling a fit of the aſthma

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than the true hives; a conſiderable degree of fever comes on: If neglected, or not checked, theſe ſymptoms will increaſe until the patient dies, ſuffocated, as in the other caſe. This *ſpaſmodic aſthma* as it has been called, is often produced by worms and teething.

The treatment of theſe two diſeaſes is in ſome reſpects ſimilar.

In the true hives, the firſt thing to be done, if called early in the diſeaſe, is to be bled, if the pulſe is hard, or inflammatory diſeaſes prevail. Directly afterwards, to give from ſix to twelve or fifteen grains of ipecacuanha, or repeated doſes of the vomiting julep, until the child is well puked; then give from four to twenty grains of calomel, at firſt, with eight or ten grains of jalap to open the bowels, and then continue the calomel with a few grains of magneſia two or three times a-day, ſo as to keep the bowels conſtantly looſe. This is peculiarly to be attended to, as it is the chief remedy, and no time muſt be loſt; and even if the ſymptoms appear to be alleviated we muſt not deſiſt until the patient is fairly out of danger. A bliſter ſhould be applied to the throat and breaſt if the ſymptoms are violent; bathing the feet in warm water may be tried. It is almoſt incredible, to thoſe who have not ſeen this diſeaſe, how much calomel very young children will bear, and how difficult it is to move their bowels.

In the *ſpaſmodic aſthma*, a moſt important remedy is the warm-bath and a glyſter, eſpecially if uſed at the firſt attack. If the ſymptoms do not yield to this, bleeding will be neceſſary, and ſhould be repeated according to their violence. An emetic will often do good; ipecacuanha, tartar emetic, or vinegar of ſquills may be uſed; the bowels ſhould be kept thoroughly opened by pretty large doſes of jalap and calomel, as moſt of the diſeaſes of children require a drain

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in the bowels, and there is no medicine that promotes this ſo well as calomel. A Burgundy-pitch plaſter ſhould be put between the ſhoulders, or if the violence of the ſymptoms demand it, a bliſter ſhould be applied there.

If worms or teething occaſion the diſorder, the medicines recommended in theſe caſes are to be uſed. Many children are troubled with this complaint for a few years, and then ſeem to outgrow it. Whatever ſtrengthens the body will prevent, or at leaſt leſſen the violence of the attack; ſuch as light food, a flannel ſhirt, cold bath, country air, and gentle exerciſe.

It often happens that children who are troubled with this diſeaſe, are much relieved by a tea-ſpoonful or two of the juice of a raw onion. This may be tried, but if it does not ſoon give relief, recourſe muſt be had to the other more powerful remedies.

OF TEETHING.

Dr Arbuthnot obſerves, that above a tenth part of infants die in teething, by ſymptoms proceeding from the irritation of the tender nervous parts of the jaws, occaſioning inflammations, fevers, convulſions, gangrenes, &c. Theſe ſymptoms are in a great meaſure owing to the great delicacy and exquiſite ſenſibility of the nervous ſyſtem at this time of life, which is too often increaſed by an effeminate education. Hence it comes to paſs, that children, who are delicately brought up, always ſuffer moſt in teething, and often die in convulſive diſorders.

About the ſixth or ſeventh month the teeth generally begin to make their appearance; firſt, the *inciſores*, or fore-teeth; next, the *canini*, or dog-teeth;

and, laſtly, the *molares*, or grinders. About the ſeventh year, there comes a new ſet; and about the twentieth, the two inner grinders, called *dentes ſapientiæ*, the teeth of wiſdom.

Children, about the time of cutting their teeth, ſlaver much, and have generally a looſeneſs. When the teething is difficult, eſpecially when the dog-teeth begin to make their way through the gums, many children have ſtartings in their ſleep, tumors of the gums, watchings, gripes, green ſtools, the thruſh, fever, difficult breathing, and convulſions.

Difficult teething requires nearly the ſame treatment as an inflammatory diſeaſe. If the body be bound, it muſt be opened either by emollient clyſters or gentle purgatives; as manna, *magneſia alba*, rhubarb, ſenna, or the like. The food ſhould be light, and in ſmall quantity; the drink plentiful, but weak and diluting, as infuſions of balm, or of elder flowers; to which about a third or fourth part of milk may be added.

If the fever be very high, bleeding will be neceſſary; but if it is not, purging, vomiting, or ſweating, agree much better with them, and are generally more beneficial. After copious purging, if the pulſe be ſufficiently reduced, a tea-ſpoonful of the anodyne mixture (ſee Appendix) every two hours will be of great ſervice. Harris, however, obſerves, that when an inflammation appears, the phyſician will labour in vain, if the *cure* be not begun with applying a leech under each ear. If the child be ſeized with convulſion-fits, a bliſtering-plaſter may be applied between the ſhoulders, or one behind each ear, or the warm bath may be uſed and frequently repeated.

Sydenham ſays, that in fevers occaſioned by teething, he never found any remedy ſo effectual as two, three, or four drops of ſpirits of hartſhorn in a ſpoonful of ſimple water, or other convenient vehicle, given

given every four hours. The number of doſes may be four, five, or ſix. I have often preſcribed this medicine with ſucceſs, but always found a larger doſe neceſſary. It may be given from five drops to fifteen or twenty, according to the age of the child, and, when coſtiveneſs does not forbid it, three or four drops of laudanum may be added to each doſe.

In Scotland it is very common, when children are cutting their teeth, to put a ſmall Burgundy-pitch-plaſter between their ſhoulders. This generally eaſes the tickling cough which attends teething, and is by no means an uſeleſs application. When the teeth are cut with difficulty, it ought to be kept on during the whole time of teething. It may be enlarged as occaſion requires, and ought to be renewed at leaſt once a fortnight.

Several things have been recommended for rubbing the gums, as oils, mucilages, &c.; but from theſe much is not to be expected. If any thing of this kind is to be uſed, we would recommend a little fine honey, which may be rubbed on with the finger three or four times a-day. Children are generally at this time diſpoſed to chew whatever they get in their hands. For this reaſon they ought never to be without ſomewhat that will yield a little to the preſſure of their gums, as a cruſt of bread, a wax-candle, a bit of liquorice-root, or ſuch like.

Cutting or lancing the gums *may* be performed by the finger-nail, the edge of a ſixpenny piece that is worn thin, or any ſharp body, which can be with ſafety introduced into the mouth; but the lancet in a ſkilful hand is certainly the moſt proper.

In order to render the teething leſs difficult, parents ought to take care that their children's food be light and wholeſome, and that their nerves be braced by ſufficient exerciſe without doors, the uſe

of the cold bath, &c. Were theſe things duly regarded, they would have a much better effect than *teething necklaces*, or other nonſenſical amulets worn for that purpoſe.

OF THE RICKETS.

This diſeaſe generally attacks children between the age of nine months and two years. It appeared firſt in England about the time when manufactures began to flouriſh, and ſtill prevails moſt in towns where the inhabitants follow ſedentary employments; by which means they neglect either to take proper exerciſe themſelves, or to give it to their children.

CAUSES.—One cauſe of the rickets is diſeaſed parents. Mothers of a weak relaxed habit, who neglect exerciſe, and live upon weak diet, can neither be expected to bring forth ſtrong and healthy children, or to be able to nurſe them, after they are brought forth. Accordingly we find, that the children of ſuch women generally die of the rickets, the ſcrophula, conſumptions, or ſuch like diſeaſes. The children of men in the decline of life, who are ſubject to the gout, the gravel, or other chronic diſeaſes, or who have been often affected with the venereal diſeaſe in their youth, are likewiſe very liable to the rickets.

Any diſorder that weakens the conſtitution, or relaxes the habit of children, as the ſmall-pox, meaſles, teething, the whooping-cough, &c. diſpoſes them to this diſeaſe. It may likewiſe be occaſioned by improper diet, as food that is either too weak and watery, or ſo viſcid that the ſtomach cannot digeſt it.

Bad nurſing is the chief cauſe of this diſeaſe. When the nurſe is either diſeaſed, or has not enough of milk to nouriſh the child, it cannot thrive. But children ſuffer oftener by want of care in nurſes than want

want of food. Allowing an infant to lie or ſit too much, or not keeping it thoroughly clean in its clothes, has the moſt pernicious effects.

The want of free air is likewiſe very hurtful to children in this reſpect. When a nurſe lives in a cloſe ſmall houſe, where the air is damp and confined, and is too indolent to carry her child abroad into the open air, it will hardly eſcape this diſeaſe. A healthy child ſhould always be in motion, unleſs when aſleep; if it be ſuffered to lie, or ſit, inſtead of being toſſed and dandled about, it will not thrive.

SYMPTOMS.—At the beginning of this diſeaſe the child's fleſh grows ſoft and flabby; its ſtrength is diminiſhed; it loſes its wonted cheerfulneſs, looks more grave and compoſed than is natural for its age, and does not chuſe to be moved. The head and belly become too large in proportion to the other parts; the face appears full, and the complexion florid. Afterwards the bones begin to be affected, eſpecially in the more ſoft and ſpongy parts. Hence the wriſts and ankles become thicker than uſual; the ſpine or back-bone puts on an unnatural ſhape; the breaſt is likewiſe often deformed; and the bones of the arms and legs grow crooked. All theſe ſymptoms vary according to the violence of the diſeaſe. The pulſe is generally quick, but feeble; the appetite and digeſtion for the moſt part bad; the teeth come ſlowly and with difficulty; and they often rot and fall out afterwards. Rickety children generally have great acuteneſs of mind, and an underſtanding above their years. Whether this is owing to their being more in the company of adults than other children, or to the preternatural enlargement of the brain, is not material.

REGIMEN.—As this diſeaſe is always attended with evident ſigns of weakneſs and relaxation, our

chief aim in the cure muſt be to brace and ſtrengthen the ſolids, and to promote digeſtion and the due preparation of the fluids. Theſe important ends will be beſt anſwered by wholeſome nouriſhing diet, ſuited to the age and ſtrength of the patient, open dry air, and ſufficient exerciſe. If the child has a bad nurſe, who either neglects her duty, or does not underſtand it, ſhe ſhould be changed. If the ſeaſon be cold, the child ought to be kept warm; and when the weather is hot, it ought to be kept cool; as ſweating is apt to weaken it, and too great a degree of cold has the ſame effect. A flannel ſhirt ſhould be worn conſtantly. The limbs ſhould be rubbed frequently with a warm hand, and the child kept as cheerful as poſſible.

The diet ought to be dry and nouriſhing, as good bread, roaſted fleſh, &c. Biſcuit is the beſt bread; and pigeons, pullets, beef, rabbits, or mutton roaſted or minced, are the moſt proper fleſh. If the child be too young for fleſh-meats, he may have rice, millet, or pearl-barley boiled with raiſins, to which may be added a little wine and ſpice. His drink may be good claret, mixed with an equal quantity of water. Thoſe who cannot afford claret, may give the child now and then a wine-glaſs full of good porter.

MEDICINE.—Medicines are here of little avail. The diſeaſe may often be cured by the nurſe, but ſeldom by the phyſician. In children of a groſs habit, gentle vomits and repeated purges of rhubarb may ſometimes be of uſe, but they will ſeldom carry off the diſeaſe; that muſt depend chiefly upon ſuch things as brace and ſtrengthen the ſyſtem: for which purpoſe, beſides the regimen mentioned above, we would recommend the cold bath, eſpecially in the warm ſeaſon. It muſt, however, be uſed with prudence, as ſome rickety children cannot bear it. The beſt time for uſing the cold bath is in the morning,

and

and the child ſhould be well rubbed with a dry cloth immediately after he comes ont of it. If he ſhould be weakened by the cold bath, it muſt be diſcontinued.

Sometimes iſſues have been found beneficial in this diſeaſe. They are peculiarly neceſſary for children who abound with groſs humors. An infuſion of the Peruvian bark in wine would be of ſervice. We might here mention many other medicines which have been recommended for the rickets; but as there is far more danger in truſting to theſe than in neglecting them altogether, we chooſe rather to paſs them over, and to recommend a proper regimen as the thing chiefly to be depended on.

OF CONVULSIONS.

Though more children are ſaid to die of convulſions than of any other diſeaſe, yet they are for the moſt part only a ſymptom of ſome other malady. Whatever greatly irritates or ſtimulates the nerves, may occaſion convulſions. Hence infants, whoſe nerves are eaſily affected, are often thrown into convulſions by any thing that irritates the alimentary canal; likewiſe by teething; ſtrait clothes; the approach of the ſmall-pox, meaſles, or other eruptive diſeaſes.

When convulſions proceed from an irritation of the ſtomach or bowels, whatever clears them of their acrid contents, or renders theſe mild and inoffenſive, will generally perform a cure: wherefore, if the child be coſtive, the beſt way will be to begin with a clyſter, and afterwards to give a gentle vomit, which may be repeated occaſionally, and the body in the mean time kept open by gentle doſes of *magneſia alba* alone, or mixed with ſmall quantities of rhubarb.

Convulſions which precede the eruption of the ſmall-pox or meaſles generally go off upon theſe making their appearance. The principal danger in this caſe ariſes from the fears and apprehenſions of thoſe who have the care of the patient. Convulſions are very alarming, and ſomething muſt be done to appeaſe the affrighted parents, nurſes, &c.

When convulſion fits ariſe from the cutting of teeth, beſides lancing the gums and gentle evacuations, we would recommend bliſtering, and the uſe of a few drops of laudanum, mixed in a little water, and given occaſionally.

When convulſions proceed from any external cauſe, as the preſſure occaſioned by ſtrait clothes or bandages, &c. theſe ought immediately to be removed; though in this caſe taking away the cauſe will not always remove the effect, yet it ought to be done. It is not likely that the patient will recover, as long as the cauſe which firſt gave riſe to the diſorder continues to act.

When a child is ſeized with convulſions, without having any complaint in the bowels, or ſymptoms of teething; or any raſh or other diſcharge which has been ſuddenly dried up; we have reaſon to conclude that it is a primary diſeaſe, and proceeds immediately from the brain. Caſes of this kind, however, happen but ſeldom, which is very fortunate, as it is difficult to relieve the unhappy patient. When a diſeaſe proceeds from an original fault in the formation or ſtructure of the brain itſelf, we cannot expect that it ſhould yield to medicine. But as this is not always the cauſe, even of convulſions which proceed immediately from the brain, ſome attempts ſhould be made to remove them. The chief intention to be purſued for this purpoſe, is by bleeding, or to make ſome derivation

from

from the head, by bliſtering, purging, and the like. Should theſe fail, iſſues or ſetons may be put in the neck, or between the ſhoulders. Bathing the feet in warm water is proper in almoſt every caſe of convulſions in children.

OF WATER IN THE HEAD, OR, DROPSY OF THE BRAIN.

Though water in the head, or a dropſy of the brain, may affect adults as well as children, yet, as the latter are more peculiarly liable to it, we thought it would be moſt proper to place it among the diſeaſes of infants.

CAUSES.——A dropſy of the brain may proceed from injuries done to the brain itſelf by falls, blows, or the like; it may likewiſe proceed from an original laxity or weakneſs of the brain; from ſchirrous tumors or excreſcences within the ſkull. It often occurs in the latter ſtage of fevers and feveriſh diſeaſes, by a determination of fluids to the brain and congeſtion and conſequent inflammation there.

SYMPTOMS.——This diſeaſe has at firſt the appearance of a ſlow fever; the patient complains heavily of a pain in the head, where he moſtly places his hands, or over his eyes; he ſhuns the light, is ſick, and ſometimes vomits; his pulſe is irregular, ſometimes full, ſometimes low, often preternaturally ſlow, and generally hard; the pupils are dilated; the body very coſtive; urine in ſmall quantities. This diſeaſe is often attributed to worms, and, indeed, before it was well underſtood, was generally called the Worm-Fever. Though the patient ſeems heavy and dull, yet he does not ſleep: he is ſometimes

times delirious, and frequently ſees objects double; towards the end of the diſeaſe, the pulſe becomes more frequent, the pupils continue dilated, a ſquinting comes on, the cheeks are flushed, the patient becomes comatoſe, and a palſy or convulſions cloſe the ſcene.

MEDICINE.——The cure of this diſeaſe is, by repeated bleedings, as long as the hard pulſe, fever, pain and dilated pupils continue. Or even while a contracted pupil continues; for it is the inſenſibility of the pupil, to the light, whether it remains contracted or dilated, that conſtitutes the danger. No time muſt be loſt in uſing this neceſſary evacuation; and were it uſed ſoon enough and in ſufficient quantity, this *hitherto* formidable diſeaſe would yield as ſoon as moſt others. It is, in fact, an inflammation of the brain, ending in effuſion or dropſy; and by curing the inflammation, we prevent the dropſy. For this purpoſe, along with the bleeding, the cooling regimen ſhould be uſed in its utmoſt extent, as in other inflammatory diſeaſes, particularly cold applications to the head. The bowels ſhould be kept conſtantly looſe with calomel mixed with jalap, rhubarb or nitre; bliſters ſhould be kept running at the back of the neck or behind the ears; or to the crown of the head, after it has been ſhaved; the diet ſhould be light. If there is reaſon to ſuppoſe the effuſion has taken place, which is known by the continuance of the diſeaſe and the ſymptoms above-mentioned, we muſt bleed, if the pulſe will bear it; uſe the purgatives and bliſters very freely; and endeavour to excite a ſalivation, by rubbing in mercurial ointment on the throat and neck. Towards the cloſe of the diſeaſe, if the patient is weak, ſtrengthening medicines and regimen, particularly exerciſe are proper. The chief caution to be attended to in the cure of this

this diſeaſe, is to apply our remedies ſpeedily and freely*.

CHAP. LI.

Of Surgery.

TO deſcribe all the operations of ſurgery, and to point out the different diſeaſes in which theſe operations are neceſſary, would extend this article far beyond the limits allotted to it: we muſt therefore confine our obſervations to ſuch caſes as moſt generally occur, and in which proper aſſiſtance is either not aſked, or not always to be obtained.

Though an acquaintance with the ſtructure of the human body is indiſpenſably neceſſary to qualify a man for being an expert ſurgeon; yet many things may be done to ſave the lives of their fellow-men in emergencies by thoſe who are no adepts in anatomy. It is amazing with what facility the peaſants daily perform operations upon brute animals, which are not of a leſs difficult nature than many of thoſe performed on the human ſpecies; yet they often meet with ſucceſs.

Indeed every man is in ſome meaſure a ſurgeon whether he will or not. He feels an inclination to

* Large and continued doſes of calomel have been much recommended for the cure of this diſeaſe. They *may* ſometimes ſucceed before the effuſion takes place, and are certainly of great ſervice afterwards; but the more active practice above recommended is chiefly to be truſted to.

aſſiſt

aſſiſt his fellow-men in diſtreſs, and accidents very often happen which give occaſion to exerciſe this feeling. The feelings of the heart, however, when not directed by the judgment, are apt to miſlead. Thus one, by a raſh attempt to ſave life, may ſometimes deſtroy it; while another, for fear of doing amiſs, ſtands ſtill and ſees his boſom-friend expire without ſo much as attempting to relieve him, even when the means are in his power. As every good man would wiſh to ſteer a courſe different from either of theſe, it will no doubt be agreeable to him to know what ought to be done upon ſuch emergencies.

OF BLEEDING.

No operation of ſurgery is ſo frequently neceſſary as bleeding; it ought therefore to be very generally underſtood. But though practiſed by midwives, gardeners, blackſmiths, &c. we have reaſon to believe that very few know when it is proper. It is however an operation of great importance, and muſt, when ſeaſonably and properly performed, be of ſingular ſervice to thoſe in diſtreſs.

Bleeding is proper at the beginning of all inflammatory fevers, as pleuriſies, peripneumonies, &c. It is likewiſe proper in all topical inflammations, as thoſe of the inteſtines, womb, bladder, ſtomach, kidneys, throats, eyes, &c. as alſo in the aſthma, ſciatic pains, coughs, head-achs, rheumatiſms, the apoplexy, epilepſy, and bloody flux. After falls, blows, bruiſes, or any violent hurt received either externally or internally, bleeding is neceſſary. But in all diſorders proceeding from a relaxation of the ſolids, and an impoveriſhed ſtate of the blood, as ſome kind of dropſies, cacochymies, &c. bleeding is improper.

Bleeding,

Bleeding, for topical inflammations, ought always to be performed as near the part affected as poſſible. When this can be done with a lancet, it is to be preferred to any other method; but where a vein cannot be found, recourſe muſt be had to leeches or cupping.

The quantity of blood to be let muſt always be regulated by the ſtrength, age, conſtitution, manner of life, and other circumſtances relating to the patient.

From whatever part of the body blood is to be let, a bandage muſt be applied between that part and the heart. As it is often neceſſary, in order to raiſe the vein, to make the bandage pretty tight, it will be proper, in ſuch caſes, as ſoon as the blood begins to flow, to ſlacken it a little. The bandage ought to be applied at leaſt two or three inches from the place where the wound is intended to be made.

Perſons not ſkilled in anatomy, ought never to bleed in a vein that lies over an artery or a tendon, if they can avoid it. The former may eaſily be known from its pulſation or beating, and the latter from its feeling hard or tight, like a whipcord, under the finger.

It was formerly a rule, even among thoſe who had the character of being regular practitioners, to bleed their patients, in certain diſeaſes, till they fainted. Surely a more ridiculous rule could not be propoſed. One perſon will faint at the ſight of a lancet, while another will loſe almoſt the whole blood of his body before he faints. Swooning often depends more upon the ſtate of the mind, than of the body; beſides, it may often be occaſioned or prevented, by the manner in which the operation is performed.

Though children are generally bled with difficulty, yet would thoſe who practice bleeding take a little more pains, and accuſtom themſelves to bleed children,

dren, they would not find it ſuch a difficult operation as they imagine.

Certain hurtful prejudices, with regard to bleeding, ſtill prevail. There is a talk, for inſtance, of head-veins, heart-veins, breaſt-veins, &c. and it is believed that bleeding in theſe, will certainly cure all diſeaſes of the parts from whence they are ſuppoſed to come, without conſidering that all the blood-veſſels ariſe from the heart, and return to it again; for which reaſon, unleſs in topical inflammations, it ſignifies very little from what part of the body blood is taken. But this, though a fooliſh prejudice, is not near ſo hurtful as the vulgar notion, that the firſt bleeding will perform wonders. This belief makes them often poſtpone the operation, when neceſſary, in order to reſerve it for ſome more important occaſion, and, when they think themſelves in extreme danger, they fly to it for relief, whether it be proper or not. Bleeding at certain ſtated periods or ſeaſons, has likewiſe often bad effects.

It is a common notion, that bleeding in the feet draws the humors downwards, and conſequently cures diſeaſes of the head and other ſuperior parts: but we have already obſerved, that, in all topical affections, the blood ought to be drawn as near the part as poſſible. When it is neceſſary, however, to bleed in the foot or hand, as the veins are ſmall, and the bleeding is apt to ſtop too ſoon, the part ought to be immerſed in warm water, and kept there till a ſufficient quantity of blood be let.

We ſhall not ſpend time in deſcribing the manner of performing this operation: that will be better learned by example than precept. Twenty pages of deſcription would not convey ſo juſt an idea of the operation, as ſeeing it once performed by an expert hand. Neither is it neceſſary to point out the different parts of the body from whence blood may be

taken, as the arm, foot, forehead, temples, neck, &c. Theſe will readily occur to every intelligent perſon, and the foregoing obſervations will be ſufficient for determining which of them is moſt proper upon any particular occaſion. In all caſes, unleſs where topical bleeding is neceſſary, the arm is the moſt commodious part of the body, in which the operation can be performed.

OF INFLAMMATIONS AND ABSCESSES.

From whatever cauſe an inflammation proceeds, it muſt terminate either by diſperſion, ſuppuration, or gangrene. Though it is impoſſible to foretel, with certainty, in which of theſe ways any particular inflammation will terminate, yet a probable conjecture may be formed, with regard to the event, from a knowledge of the patient's age and conſtitution. Inflammations happening in a ſlight degree upon colds, and without any previous indiſpoſition, will moſt probably be diſperſed; thoſe which follow cloſe upon a fever, or happen to perſons of a groſs habit of body, will generally ſuppurate; and thoſe which attack very old people, or perſons of a dropſical habit, will have a ſtrong tendency to gangrene.

If the inflammation be ſlight, and the conſtitution ſound, the diſperſion ought always to be attempted. This will be beſt promoted by a ſlender diluting diet, plentiful bleeding, and repeated purges. The part itſelf muſt be fomented, and, if the ſkin be very tenſe, it may be embrocated with a mixture of three-fourths of ſweet oil, and one-fourth of vinegar, and afterwards covered with a piece of wax-plaſter.

If, notwithſtanding theſe applications, the ſymptomatic fever increaſes, and the tumor becomes larger, with violent pain and pulſation, it will be proper to promote the ſuppuration. The beſt application

cation for this purpoſe, is a ſoft poultice of bread and milk, which ſhould always be renewed ſix or ſeven times a-day. If the ſuppuration proceeds but ſlowly, a raw onion, cut ſmall or bruiſed, may be ſpread upon the poultice. When the abſceſs is ripe or fit for opening, which may eaſily be known from the thinneſs of the ſkin in the moſt prominent part of it, a fluctuation of matter which may be felt under the finger, and, generally ſpeaking, an abatement of the pain, it may be opened either with a lancet or by means of cauſtic*.

The laſt way in which an inflammation terminates, is in a gangrene or mortification, the approach of which may be known by the following ſymptoms: the inflammation loſes its redneſs, and becomes duſkiſh or livid; the tenſion of the ſkin goes off, and it feels flabby; little bladders filled with ichor of different colours ſpread all over it; the tumor ſubſides, and from a duſkiſh complexion becomes black; a quick low pulſe with cold clammy ſweats, are the immediate fore-runners of death.

When theſe ſymptoms firſt appear, the part ought to be dreſſed with a cataplaſm made of lye and bran. Should the ſymptoms become worſe, the part muſt be ſcarified and afterwards dreſſed with baſilicum ſoftened with oil of turpentine. All the dreſſings muſt be applied warm. With regard to internal medicines, the patient muſt be ſupported with generous cordials, and the Peruvian bark exhibited in as large doſes as the ſtomach will bear it. If the mortified parts ſhould ſeparate, the wound will become a common ulcer, and muſt be treated accordingly.

This article includes the treatment of all thoſe diſeaſes, which in different parts of the country, go

* It ſometimes happens that, from the ſituation of an inflammation, we do not wiſh it to ſuppurate. In this caſe it may be reſolved by ſcarifying.

by the names of *biles*, *impoſthumes*, *whitloes*, &c.* They are all abſceſſes in conſequence of a previous inflammation, which, if poſſible, ought to be diſcuſſed; but when this cannot be done, the ſuppuration ſhould be promoted, and the matter diſcharged by an inciſion, if neceſſary; afterwards the ſore may be dreſſed with yellow baſilicum, or ſome other digeſtive ointment.

OF WOUNDS.

No part of medicine has been more miſtaken than the treatment or cure of wounds. Mankind in general believe that certain herbs, ointments, and plaſters are poſſeſſed of wonderful healing powers, and imagine that no wound can be cured without the application of them. It is however a well eſtabliſhed fact, that no external application whatever contributes towards the cure of a wound, any other way than by keeping the parts ſoft, clean, and defending them from the external air, which may be as effectually done by dry lint, as by the moſt pompous applications, while it is exempt from many of the bad conſequences attending them †.

The ſame obſervation holds with reſpect to internal applications. Theſe only promote the cure of wounds as far as they tend to prevent a fever, or to remove any cauſe that might obſtruct or impede the operations of Nature. It is Nature alone that cures wounds. All that art can do is to remove obſtacles,

* The paronychia or whitlow is cured with moſt certainty by thruſting a lancet into the moſt painful part, ſo as to feel the bone.

† It may be ſaid that freſh wounds are healed by the application of Turlington's balſam, and ſimilar medicines. The truth is, that theſe ſubſtances do good only by excluding the external air, which dry lint would do much better.

and to put the parts in ſuch a condition as is the moſt favourable to Nature's efforts.

With this ſimple view we ſhall conſider the treatment of wounds, and endeavour to point out ſuch ſteps as ought to be taken to facilitate their cure.

The firſt thing to be done when a perſon has received a wound, is to examine whether any foreign body be lodged in it, as wood, ſtone, iron, lead, glaſs, dirt, bits of cloth, or the like. Theſe, if poſſible, ought to be extracted, and the wound cleaned before any dreſſings be applied. When that cannot be effected with ſafety, on account of the patient's weakneſs, or loſs of blood, they muſt be ſuffered to remain in the wound, and afterwards extracted when he is more able to bear it *.

When a wound penetrates into any of the cavities of the body, as the breaſt, the bowels, &c. or where any conſiderable blood-veſſel is cut, a ſkilful ſurgeon ought immediately to be called, otherwiſe the patient may loſe his life. But ſometimes the diſcharge of blood is ſo great, that if it be not ſtopt, the patient may die even before a ſurgeon, though at no great diſtance, can arrive. In this caſe ſomething muſt be done by thoſe who are preſent. If the wound be in any of the limbs, the bleeding may generally be ſtopt by applying a tight ligature or bandage round the member a little above the wound. The beſt method of doing this is to put a ſtrong broad garter round the part, with a compreſs of linen directly on it, but ſo ſlack as eaſily to admit a ſmall piece of ſtick to be put under it, which muſt be twiſted, in the ſame manner as a countryman does a cart-rope to ſecure his loading, till the bleeding ſtops. Whenever this is the caſe, he muſt take care

* The lips of a ſimple wound ſhould always be brought together either by bandage, ſticking plaſter, or ſuture.

to

to twiſt it no longer, as ſtraining it too much might occaſion an inflammation of the parts, and endanger a gangrene.

In parts where this bandage cannot be applied, various other methods may be tried to ſtop the bleeding, as the application of ſtyptics, aſtringents, &c. Cloths dipped in a ſolution of blue vitriol in water, or the *ſtyptic water* of the Diſpenſatories, may be applied to the wound. When theſe cannot be obtained, ſtrong ſpirits of wine may be uſed. Some recommend the *agaric** of the oak as preferable to any of the other ſtyptics; and indeed it deſerves conſiderable encomiums. It is eaſily obtained, and ought to be kept in every family, in caſe of accidents. A piece of it muſt be laid upon the wound, and covered with a good deal of lint, above which a bandage may be applied ſo tight as to keep it firmly on †.

Though ſpirits, tinctures, and hot balſams may be uſed, in order to ſtop the bleeding when it is exceſ-

* Dr. Tiſſot, in his *Advice to the People*, gives the following directions for gathering, preparing, and applying the agaric: "Gather in autumn," ſays he, "while the fine weather laſts, the agaric of the oak, which is a kind of fungus or excreſcence iſſuing from the wood of that tree. It conſiſts at firſt of four parts, which preſent themſelves ſucceſſively: 1. The outward rind or ſkin, which may be thrown away. 2. The part immediately under this rind, which is the beſt of all. This is to be beat well with a hammer, till it becomes ſoft and very pliable. This is the only preparation it requires, and a ſlice of it of a proper ſize is to be applied directly over the open blood-veſſels. It conſtringes and brings them cloſe together, ſtops the bleeding, and generally falls off at the end of two days. 3. The third part adhering to the ſecond may ſerve to ſtop the bleeding from the ſmaller veſſels; and the fourth and laſt part may be reduced to powder as conducing to the ſame purpoſe." Where agaric cannot be had, ſponge may be uſed in its ſtead. It muſt be applied in the ſame manner, and has nearly the ſame effects.

† Lint alone, or lint dipped in flour, will often ſtop a bleeding; ſo will ſcraped hat and cob-webs.

ſive, they are improper at other times. They do not promote but retard the cure, and often change a ſimple wound into an ulcer. People imagine becauſe hot balſams congeal the blood, and ſeem, as it were, to ſolder up the wound, that they therefore heal it; but this is only a deception. They may indeed ſtop the flowing blood, by ſearing the mouths of the veſſels; but, by rendering the part callous, they obſtruct the cure.

In ſlight wounds, which do not penetrate much deeper than the ſkin, the beſt application is a bit of the common black ſticking-plaſter. This keeps the ſides of the wound together, and prevents the air from hurting it, which is all that is neceſſary. When a wound penetrates deep, its lips ſhould be drawn together by ſutures.

We ſhall not ſpend time in deſcribing the different bandages that may be proper for wounds in different parts of the body; common ſenſe will generally ſuggeſt the moſt commodious method of applying a bandage; beſides, deſcriptions of this kind are not eaſily underſtood or remembered.

The firſt dreſſing ought to continue on for at leaſt two days; after which it may be removed, and freſh lint applied as before. If any part of the firſt dreſſing ſticks ſo cloſe as not to be removed with eaſe or ſafety to the patient, it may be allowed to continue, and freſh lint dipped in ſweet oil laid over it. This will ſoften it, ſo as to make it come off eaſily at the next dreſſing. Afterwards the wound may be dreſſed twice a-day in the ſame manner till it be quite healed. Thoſe who are fond of ſalves or ointments, may, after the wound is become very ſuperficial, dreſs it with the yellow *baſilicum** ; and if fungous, or what is called *proud fleſh*, ſhould riſe in the

* See Appendix, *Yellow Baſilicum.*

wound

wound, it may be checked by ſprinkling on it a little burnt alum or red precipitate of mercury.

When a wound is greatly inflamed, the moſt proper application is a poultice of bread and milk, juſt warm, ſoftened with a little ſweet oil, freſh butter or lard. This muſt be applied inſtead of a plaſter, and ſhould be changed ſeveral times a-day.

If the wound be large, and there is reaſon to fear an inflammation, the patient ſhould be kept on a very low diet. He muſt abſtain from fleſh, ſtrong liquors, and every thing that is of an heating nature. If he be of a full habit, and has not loſt much blood from the wound, he muſt be bled; and, if the ſymptoms be urgent, the operation muſt be repeated. But when the patient has been greatly weakened by loſs of blood from the wound, it will be needleſs to bleed him, unleſs a fever ſhould enſue. Nature ſhould never be too far exhauſted.

Wounded perſons ought to be kept perfectly quiet and eaſy. Every thing that ruffles the mind or moves the paſſions, as love, anger, fear, exceſſive joy, &c. are very hurtful. They ought above all things to abſtain from venery. The body ſhould be kept gently open, either by laxative clyſters, or by a cool vegetable diet, as roaſted apples, ſtewed prunes, boiled ſpinage, and ſuch like.

OF BURNS.

In ſlight burns which do not break the ſkin, it is cuſtomary to hold the part near the fire for a competent time, to rub it with ſalt, or to lay a compreſs upon it dipped in ſpirits of wine or brandy. But the proper way of treating burns is to apply linen cloths dipped in cold water, conſtantly to the part, until the pain is relieved. This is the moſt effectual remedy to prevent pain, inflammation and ulceration.

But when the burn has penetrated ſo deep as to bliſter or break the ſkin, it muſt be dreſſed with ſome of the liniment for burns mentioned in the Appendix, or with the ointment, commonly called *Goulard's cerate* *. This may be mixed with an equal quantity of *Turner's cerate* †, and ſpread upon a ſoft rag, and applied to the part affected, if the part is very irritable. If it is not, the *Goulard's cerate* alone is the beſt application. When this ointment cannot be had, an egg may be beat up with about an equal quantity of the ſweeteſt ſalad oil. This will ſerve very well till a proper ointment can be prepared. When the burning is very deep, after the firſt two or three days, it ſhould be dreſſed with equal parts of *Goulard's* and *Turner's cerate* mixed together.

When the burn is violent, or has occaſioned a high degree of inflammation, and there is reaſon to fear a gangrene or mortification, the ſame means muſt be uſed to prevent it as are recommended in other violent inflammations. The patient, in this caſe, muſt live low, and drink freely of weak diluting liquors. He muſt likewiſe be bled, and have his body kept open. But if the pulſe falls and the burnt parts ſhould become livid or black, with other ſymptoms of mortification, it will be neceſſary to bathe them frequently with warm camphorated ſpirits of wine, tincture of myrrh, or other antiſeptics, mixed with a decoction of the bark. In this caſe the bark muſt likewiſe be taken internally, and the patient's diet muſt be more generous *.

* See Appendix, *Goulard's cerate.*

† See Appendix, *Turner's cerate*

* The ſore remaining after a burn is generally filled with fungous, or as it is commonly called, proud fleſh; this ſhould be kept down by the daily application of the lunar cauſtic, blue vitriol, or burnt alum.

As

As example teaches better than precept, I ſhall relate the treatment of the moſt dreadful caſe of this kind that has occurred in my practice. A middle-aged man, of a good conſtitution, fell into a large veſſel full of boiling-water, and miſerably ſcalded about one half of his body. As his clothes were on, the burning in ſome parts was very deep before they could be got off. For the firſt two days the ſcalded parts had been frequently anointed with a mixture of lime-water and oil, which is a very proper application for recent burns. On the third day when I firſt ſaw him, his fever was high, and his body coſtive, for which he was bled, and had an emollient clyſter adminiſtered. Poultices of bread and milk, ſoftened with freſh butter, were likewiſe applied to the affected parts, to abate the heat and inflammation. His fever ſtill continuing high, he was bled a ſecond time, was kept ſtrictly on the cooling regimen, took the ſaline mixture with ſmall doſes of nitre, and had an emollient clyſter adminiſtered once a-day. When the inflammation began to abate, the parts were dreſſed with a digeſtive compoſed of brown cerate and yellow baſilicum Where any black ſpots appeared, they were ſlightly ſcarified, and touched with the tincture of myrrh ; and, to prevent their ſpreading, the Peruvian bark was adminiſtered. By this courſe, the man was ſo well in three weeks as to be able to attend to his buſineſs.

OF BRUISES.

Bruiſes are generally productive of worſe conſequences than wounds. The danger from them does not appear immediately, by which means it often happens that they are neglected. It is need-

leſs to give any definition of a diſeaſe ſo univerſally known; we ſhall therefore proceed to point out the method of treating it.

In ſlight bruiſes it will be ſufficient to bathe the part with warm vinegar, to which a little brandy or rum may occaſionally be added, and to keep cloths wet with this mixture conſtantly applied to it. This is more proper than rubbing it with brandy, ſpirits of wine, or other ardent ſpirits, which are commonly uſed in ſuch caſes *.

When a bruiſe is very violent, the patient ought immediately to be bled, and put upon a proper regimen. His food ſhould be light and cool, and his drink weak, and of an opening nature; as whey ſweetened with honey, decoctions of tamarinds, barley, cream of tartar-whey, and ſuch like. The bruiſed part muſt be bathed with vinegar, as directed above; and a poultice made by boiling crumb of bread, and camomile-flowers, in equal quantities of vinegar and water, applied to it. This poultice is peculiarly proper when a wound is joined to the bruiſe. It may be renewed two or three times a-day.

As the ſtructure of the veſſels is totally deſtroyed by a violent bruiſe, there often enſues a great loſs of ſubſtance, which produces an ulcerous ſore difficult to cure. If the bone be affected, the ſore will not heal before an exfoliation takes place; that is, before the diſeaſed part of the bone ſeparates, and comes out through the wound. This is often a very ſlow operation, and may even require ſeveral years to be completed. Hence it happens, that

* In every caſe of recent bruiſe, if the ſkin is not broke, and the part is immediately immerſed in cold vinegar or cold water, and kept there for ſome time, moſt of the diſagreeable conſequences may be prevented.

theſe

theſe ſores are frequently miſtaken for the king's evil, and treated as ſuch, though in fact they proceed ſolely from the injury which the ſolid parts received from the blow.

Patients in this ſituation are peſtered with different advices. Every one who ſees them propoſes a new remedy, till the ſore is ſo much irritated with various and oppoſite applications, that it is often at length rendered abſolutely incurable. The beſt method of managing ſuch ſores is, to take care that the patient's conſtitution does not ſuffer by confinement, or improper medicine, and to apply nothing to them beſides ſimple ointment ſpread upon ſoft lint, over which a poultice of bread and milk, with boiled camomile-flowers, or the like, may be put, to nouriſh the part, and keep it ſoft and warm. Nature, thus aſſiſted, will generally in time operate a cure, by throwing off the diſeaſed parts of the bone, after which the ſore ſoon heals.

OF ULCERS.

Ulcers may be the conſequence of wounds, bruiſes, or impoſthumes improperly treated; they may likewiſe proceed from an ill ſtate of the humors, or what is called a bad habit of body.

In the latter caſe, they ought not to be haſtily dried up, otherwiſe it may prove fatal to the patient. Ulcers happen moſt commonly in the decline of life; and perſons who neglect exerciſe, and live groſsly, are moſt liable to them. They might often be prevented by retrenching ſome part of the ſolid food, or by opening artificial drains, as iſſues, ſetons or the like.

An ulcer may be diſtinguiſhed from a wound by its diſcharging a thin watery humor, which is often ſo acrid as to inflame and corrode the ſkin; by the hardneſs

hardneſs and perpendicular ſituation of its ſides or edges, by the time of its duration, &c.

It requires conſiderable ſkill to be able to judge whether or not an ulcer ought to be dried up. In general, all ulcers which proceed from a bad habit of body, ſhould be ſuffered to continue open, at leaſt till the conſtitution has been ſo far changed by proper regimen, or the uſe of medicine, that they ſeem diſpoſed to heal of their own accord. Ulcers which are the effect of malignant fevers, or other acute diſeaſes, may generally be healed with ſafety after the health has been reſtored for ſome time. The cure ought not however to be attempted too ſoon, nor at any time without the uſe of purging medicines and a proper regimen. When wounds or bruiſes have, by wrong treatment, degenerated into ulcers, if the conſtitution be good, they may generally be healed with ſafety. When ulcers either accompany chronic diſeaſes, or come in their ſtead, they muſt be cautiouſly healed. If an ulcer conduces to the patient's health, from whatever cauſe it proceeds, it ought not to be healed; but if, on the contrary, it waſtes the ſtrength, and conſumes the patient by a ſlow fever, it ſhould be healed as ſoon as poſſible.

We would earneſtly recommend a ſtrict attention to theſe particulars, to all who have the misfortune to labour under this diſorder, particularly perſons in the decline of life; as we have frequently known people throw away their lives by the want of it, while they were extolling and generouſly rewarding thoſe whom they ought to have looked upon as their executioners.

The moſt proper regimen for promoting the cure of ulcers, is to avoid all ſpices, ſalted and high-ſeaſoned food, all ſtrong liquors, and to leſſen the uſual quantity of fleſh meat. The body ought to be

be kept gently open by a diet conſiſting chiefly of cooling laxative vegetables, and by drinking butter-milk, whey ſweetened with honey, or the like. The patient ought to be kept cheerful, and ſhould take as much exerciſe as he can eaſily bear.

When the bottom and ſides of an ulcer ſeem hard and callous, they may be ſprinkled twice a-day with a little red precipitate of mercury, and afterwards dreſſed with the yellow *baſilicum* ointment. Sometimes it will be neceſſary to have the edges of the ulcer ſcarified with the lancet.

Lime-water has frequently been known to have very happy effects in the cure of obſtinate ulcers. It may be uſed, made in the ſame manner as directed for the ſtone and gravel.

My late learned and ingenious friend, Dr. Whytt, ſtrongly recommends the uſe of the ſolution of corroſive ſublimate of mercury in brandy, for the cure of obſtinate ill-conditioned ulcers. I have frequently found this medicine, when given according to the Doctor's directions, prove very ſucceſsful. The doſe is a table-ſpoonful night and morning; at the ſame time waſhing the ſore twice or thrice a-day with it. In a letter which I had from the Doctor a little before his death, he informed me, 'That he 'obſerved waſhing the ſore thrice a-day with the 'ſolution of a triple ſtrength was very beneficial *.'

A fiſtulous ulcer can ſeldom be cured without an operation. It muſt either be laid open ſo as to have its callous parts deſtroyed by ſome corroſive application or they muſt be entirely cut away by the knife: but as this operation requires the hand of an expert ſurgeon, there is no occaſion to deſcribe it. Ulcers

* In ulcers of the lower limbs great benefit is often received from tight rollers, or wearing a laced ſtocking, as this prevents the flux of humors to the ſores, and diſpoſes them to heal.

about

about the *anus* are moſt apt to become fiſtulous, and are very difficult to cure. Some indeed pretend to have found Ward's Fiſtula paſte very ſucceſsful in this complaint. It is not a dangerous medicine, and being eaſily procured, it may deſerve a trial; but as theſe ulcers generally proceed from an ill habit of body, they will ſeldom yield to any thing except a long courſe of regimen, aſſiſted by medicines, which are calculated to correct that particular habit, and to induce an almoſt total change in the conſtitution.

The beſt general rule, for the cure of ulcers, is to reduce the callous edges, procure good pus, and ſtrengthen the part affected; and to do this we muſt treat our patients as in other caſes. If the ſymptoms of inflammation prevail, uſe ſuch remedies as will leſſen it; bleeding, purging, and a vegetable diet. Half a drachm of nitre twice or three times a-day ſhould be given. If debility prevails in the ſyſtem give bark, wine, and generous diet. In either caſe abſolute reſt is neceſſary. To relieve violent pain we uſe opium internally, and the lead water to the part; to reduce the edges, lunar cauſtic or the knife. If theſe do not produce good pus, we fill the ſore with red precipitate, or arſenic powder, ſee Appendix, or powdered columbo root, or rhubarb, according to the nature of it. If the ſore ſmells bad, the carrot poultice or lime juice. If theſe do not produce good pus, one of the calomel pills night and morning until it change the nature of the diſcharge. In all old ulcers, an iſſue ſhould be made; and when the ſore has become healthy, the tight roller of coarſe muſlin will be found of the greateſt ſervice.

CHAP.

CHAP. LII.

Of Diſlocations.

WHEN a bone is moved out of its place or articulation, ſo as to impede its proper functions, it is ſaid to be *luxated* or *diſlocated*. As this often happens to perſons in ſituations where no medical aſſiſtance can be obtained, by which means limbs, and even lives, are frequently loſt, we ſhall endeavour to point out the method of reducing the moſt common luxations, and thoſe which require immediate aſſiſtance. Any perſon of common ſenſe and reſolution, who is preſent when a diſlocation happens, may often be of more ſervice to the patient, than the moſt expert ſurgeon can after the ſwelling and inflammation have come on. When theſe are preſent, it is difficult to know the ſtate of the joint, and dangerous to attempt a reduction; and by waiting till they are gone off, the muſcles may become ſo relaxed, and the cavity filled up, that the bone can never afterwards be retained in its place.

A recent diſlocation may generally be reduced by extenſion alone, which muſt always be greater or leſs according to the ſtrength of the muſcles which move the joint, the age, robuſtneſs, and other circumſtances of the patient. When the bone has been out of its place for any conſiderable time, and a ſwelling or inflammation has come on, it will be neceſſary to bleed the patient, and, after fomenting the part, to apply ſoft poultices with vinegar to it for ſome time before the reduction is attempted, and indeed bleeding is generally proper

in

in all cafes of diflocation. Bleeding, even to fainting, produces fuch a relaxation of the mufcles and ligaments, that obftinate cafes of fome weeks ftanding have yielded to this method.

All that is neceffary after the reduction, is to apply cloths dipt in vinegar or camphorated fpirits of wine to the part, and to keep it perfectly eafy. Many bad confequences proceed from the neglect of this rule. A diflocation feldom happens without the tendons and ligaments of the joints being ftretched and fometimes torn. When thefe are kept eafy till they recover their ftrength and tone, all goes on very well; but if the injury be increafed by too frequent an exertion of the parts, no wonder if they be found weak and difeafed ever after.

DISLOCATION OF THE JAW.

The lower jaw may be luxated by yawning, blows, falls, chewing hard fubftances, or the like. It is eafily known from the patient's being unable to fhut his mouth, or to eat any thing, as the teeth of the under jaw do not correfpond with thofe of the upper; befides, the chin either hangs down, or is thrown toward one fide, and the patient is neither able to fpeak diftinctly, nor to fwallow without confiderable difficulty.

The ufual method of reducing a diflocated jaw, is to fet the patient upon a low ftool, fo as an affiftant may hold the head firm by preffing it againft his breaft. The operator is then to thruft his two thumbs, being firft wrapped up with linen cloths that they may not flip, as far back into the patient's mouth as he can, while his fingers are applied to the jaw externally. After he has got firm hold of the jaw, he is to prefs it ftrongly downwards

wards and backwards, by which means the elapſed heads of the jaw may be eaſily puſhed into their former cavities.

The peaſants in ſome parts of the country have a peculiar way of performing this operation. One of them puts a handkerchief under the patient's chin, then turning his back to that of the patient, pulls him up by the chin ſo as to ſuſpend him from the ground. This method often ſucceeds, but we think it a dangerous one, and therefore recommend the former.

DISLOCATION OF THE NECK.

The neck may be diſlocated by falls, violent blows, or the like. In this caſe, if the patient receives no aſſiſtance, he ſoon dies, which makes people imagine the neck was broken; it is, however, for the moſt part only partially diſlocated, and may be reduced by almoſt any perſon who has reſolution enough to attempt it. A complete diſlocation of the neck is inſtantaneous death.

When the neck is diſlocated, the patient is immediately deprived of all ſenſe and motion; his neck ſwells, his countenance appears bloated; his chin lies upon his breaſt, and his face is generally turned towards one ſide.

To reduce this diſlocation, the unhappy perſon ſhould immediately be laid upon his back on the ground, and the operator muſt place himſelf behind him, ſo as to be able to lay hold of his head with both hands, while he makes a reſiſtance by placing his knees againſt the patient's ſhoulders. In this poſture he muſt pull the head with conſiderable force, gently twiſting it at the ſame time, if the face be turned to one ſide, till he perceives that the joint is

is replaced, which may be known from the noiſe which the bones generally make when going in, the patient's beginning to breathe, and the head continuing in its natural poſture.

This is one of thoſe operations which it is more eaſy to perform than deſcribe. I have known inſtances of its being happily performed even by women, and often by men of no medical education. After the neck is reduced, the patient ought to be bled, and ſhould be ſuffered to reſt for ſome days, till the parts recover their proper tone.

DISLOCATION OF THE RIBS.

As the articulation of the ribs with the backbone is very ſtrong, they are not often diſlocated. It does however ſometimes happen, which is a ſufficient reaſon for our taking notice of it. When a rib is diſlocated either upwards or downwards, in order to replace it, the patient ſhould be laid upon his belly on a table, and the operator muſt endeavour to puſh the head of the bone into its proper place. Should this method not ſucceed, the arm of the diſordered ſide may be ſuſpended over a gate or ladder, and, while the ribs are thus ſtretched aſunder, the heads of ſuch as are out of place may be thruſt into their former ſituation.

Thoſe diſlocations wherein the heads of the ribs are forced inwards, are both more dangerous and the moſt difficult to reduce, as neither the hand nor any inſtrument can be applied internally to direct the luxated heads of the ribs. Almoſt the only thing that can be done is, to lay the patient upon his belly over a caſk, or ſome gibbous body, and to move the fore-part of the rib inward towards the

back, ſometimes ſhaking it; by this means the heads of the luxated ribs may ſlip into their former place.

DISLOCATION OF THE SHOULDER.

The humerus or upper bone of the arm may be diſlocated in various directions: it happens, however, moſt frequently downwards, but very ſeldom directly upwards. From the nature of its articulation, as well as from its expoſure to external injuries, this bone is the moſt ſubject to diſlocation of any in the body. A diſlocation of the humerus may be known by a depreſſion or cavity on the top of the ſhoulder, and an inability to move the arm. When the diſlocation is downward or forward, the arm is elongated, and a ball or lump is perceived under the arm-pit; but when it is backward, there appears a protuberance behind the ſhoulder, and the arm is thrown forwards towards the breaſt.

The uſual method of reducing diſlocations of the ſhoulder is to ſeat the patient upon a low ſtool, and to cauſe an aſſiſtant to hold his body ſo that it may not give way to the extenſion, while another lays hold of the arm a little above the elbow, and gradually extends it. The operator then puts a napkin under the patient's arm, and cauſes it to be tied behind his own neck: by this, while a ſufficient extenſion is made, he lifts up the head of the bone, and with his hands directs it into its proper place. There are various machines invented for facilitating this operation, but the hand of an expert ſurgeon is always more ſafe. In young and delicate patients, I have generally found it a very eaſy matter to reduce the ſhoulder, by extending the arm with one hand, and thruſting in the head of the bone with the other. In making the extenſion, the arm ought always to be a little bent.

DISLOCATION OF THE ELBOW.

The bones of the fore-arm may be diſlocated in any direction. When this is the caſe, a protuberance may be obſerved on that ſide of the arm towards which the bone is puſhed, from which, and the patient's inability to bend his arm, a diſlocation of this joint may eaſily be known.

Two aſſiſtants are generally neceſſary for reducing a diſlocation of the elbow; one of them muſt lay hold of the arm above, and the other below the joint, and make a pretty ſtrong extenſion, while the operator returns the bones into their proper place. Afterwards the arm muſt be bent, and ſuſpended for ſome time with a ſling about the neck.

Luxations of the wriſt and fingers are to be removed in the ſame manner as thoſe of the elbow, *viz.* by making an extenſion in different directions, and thruſting the head of the bone into its place.

DISLOCATION OF THE THIGH.

When the thigh-bone is diſlocated forward and downward, the knee and foot are turned out, and the leg is longer than the other; but when it is diſplaced backward, it is uſually puſhed upward at the ſame time, by which means the limb is ſhortened, and the foot is turned inwards.

When the thigh-bone is diſplaced forward and downward, the patient, in order to have it reduced, muſt be laid upon his back, and made faſt by bandages, or held by aſſiſtants, while by others an extenſion is made by means of ſlings fixed about the bottom of the thigh a little above the knee. While the extenſion is made, the operator muſt puſh the head of the bone outward, till it gets into the ſocket. If the diſlocation

diſlocation be outward, the patient muſt be laid upon his face, and, during the extenſion, the head of the bone muſt be puſhed inward.

Diſlocations of the *knees*, *ankles*, and *toes*, are reduced much in the ſame manner as thoſe of the upper extremities, *viz.* by making an extenſion in oppoſite directions, while the operator replaces the bones. In many caſes, however, the extenſion alone is ſufficient, and the bone will ſlip into its place merely by pulling the limb with ſufficient force. It is not hereby meant, that force alone is ſufficient for the reduction of diſlocations. Skill and addreſs will often ſucceed better than force. I have known a diſlocation of the thigh reduced by one man, after all the force that could be uſed by ſix had proved ineffectual.

CHAP. LIII.

Of Broken Bones, &c.

THERE is, in moſt country villages, ſome perſon who pretends to the art of reducing fractures. Though in general ſuch perſons are very ignorant, yet ſome of them are very ſucceſsful; which evidently proves, that a ſmall degree of learning, with a ſufficient ſhare of common ſenſe and a mechanical head, will enable a man to be uſeful in this way. We would, however, adviſe people never to employ ſuch operators, when an expert and ſkilful ſurgeon can be had, but when that is impracticable, they muſt be employed: we ſhall therefore recommend the following hints to their conſideration:

When a large bone is broken, the patient's diet ought in all reſpects to be the ſame as in an inflammatory fever. He ſhould likewiſe be kept quiet and cool, and his body open by emollient clyſters; or, if theſe cannot be conveniently adminiſtered, by food that is of an opening quality; as ſtewed prunes, apples boiled in milk, boiled ſpinage, and the like. It ought however to be here remarked, that perſons who have been accuſtomed to live high, are not all of a ſudden to be reduced to a very low diet. This might have fatal effects. There is often a neceſſity for indulging even ſuch habits, in ſome meaſure, where the nature of the diſeaſe might require a different treatment.

It will generally be neceſſary to bleed the patient immediately after a fracture, eſpecially if he be young, of a full habit, or has at the ſame time received any bruiſe or contuſion. This operation ſhould not only be performed ſoon after the accident happens, but if the patient be very feveriſh, it may be repeated next day. When ſeveral of the ribs are broken, bleeding is peculiarly neceſſary.

If any of the large bones which ſupport the body are broken, the patient muſt keep his bed for ſeveral weeks. It is by no means neceſſary, however, that he ſhould lie all that time, as is cuſtomary, upon his back. This ſituation ſinks the ſpirits, galls and frets the patient's ſkin, and renders him very uneaſy. After the ſecond week he may be gently raiſed up, and may ſit ſeveral hours, ſupported by a bed-chair, or the like, which will greatly relieve him. Great care, however, muſt be taken in raiſing him up, and laying him down, that he make no exertions himſelf, otherwiſe the action of the muſcles may pull the bone out of its place*.

* Various pieces of machinery have been contrived for counteracting the force of the muſcles, and retaining the fragments

It is of great importance to keep the patient dry and clean while in this ſituation. By neglecting this, he is often ſo galled and excoriated, that he is forced to keep ſhifting places for eaſe. I have known a fractured thigh-bone, after it had been kept ſtraight for above a fortnight, diſplaced by this means, and continue bent for life, in ſpite of all that could be done.

It has been cuſtomary when a bone was broken, to keep the limb for five or ſix weeks continually upon the ſtretch. But this is a bad poſture. It is both uneaſy to the patient, and unfavourable to the cure. The beſt ſituation is to keep the limb a little bent. This is the poſture into which every animal puts its limbs when it goes to reſt, and in which feweſt muſcles are upon the ſtretch. It is eaſily effected, by either laying the patient upon his ſide, or making the bed ſo as to favour this poſition of the limb.

Bone-ſetters ought carefully to examine whether the bone be not ſhattered or broken into ſeveral pieces. In this caſe it may ſometimes be neceſſary to have the limb immediately taken off, otherwiſe a gangrene or mortification may enſue. But it is unneceſſary to give further directions on this head, as ſuch an operation will never be attempted without the advice of a ſkilful ſurgeon.

ments of broken bones; but as deſcriptions of theſe without drawings would be of little uſe, I ſhall refer the reader to a cheap and uſeful performance *on the nature and cure of fractures*, lately publiſhed by my ingenious friend Mr Aitkin, ſurgeon in Edinburgh; wherein that gentleman has not only given an account of the machines recommended in fractures by former authors, but has likewiſe added ſeveral improvements of his own, which are peculiarly uſeful in compound fractures, and in caſes where patients with broken bones are obliged to be tranſported from one place to another.

When a fracture is accompanied with a wound, it muſt be dreſſed in all reſpects as a common wound.

All that art can do towards the cure of a broken bone, is to lay it perfectly ſtraight, and to keep it quite eaſy. All tight bandages do hurt. They had much better be wanting altogether. A great many of the bad conſequences which ſucceed to fractured bones are owing to tight bandages. This is one of the ways in which the exceſs of art, or rather the abuſe of it, does more miſchief than would be occaſioned by the want of it. Some of the moſt ſudden cures of broken bones which were ever known, happened where no bandages were applied at all. Some method however muſt be taken to keep the member ſteady; but this may be done many ways without bracing it with a tight bandage.

The beſt method of retention is by two or more ſplints made of leather or ſtrong paſteboard. Theſe, if moiſtened before they be applied, ſoon aſſume the ſhape of the included member, and are ſufficient by the aſſiſtance of a very ſlight bandage, for all the purpoſes of retention. The bandage which we would recommend is that made with ſeveral diſtinct pieces of broad tape or ferret. It is much eaſier applied and taken off than rollers, and anſwers all the purpoſes of retention equally well. The ſplints ſhould always be as long as the limb, with holes cut for the ankles when the fracture is in the leg.

In fractures of the ribs, where a bandage cannot be properly uſed, an adheſive plaſter may be applied over the part. The patient in this caſe ought to keep himſelf quite eaſy, avoiding every thing that may occaſion ſneezing, laughing, coughing, or the like. He ought to keep his body in a ſtraight poſture, and ſhould take care that his ſtomach be conſtantly diſtended, by taking frequently ſome light food, and drink freely of weak watery liquors.

The

The moſt proper external application for a fracture is *oxycrate*, or a mixture of vinegar and water. The bandages ſhould be wet with this at every dreſſing.

OF STRAINS.

Strains are often attended with worſe conſequences than broken bones. The reaſon is obvious; they are generally neglected. When a bone is broken, the patient is obliged to keep the member eaſy, becauſe he cannot make uſe of it; but when a joint is only ſtrained, the perſon, finding he can ſtill make a ſhift to move it, is ſorry to loſe his time for ſo trifling an ailment. In this way he deceives himſelf, and converts into an incurable malady, what might have been removed by only keeping the part eaſy for a few days.

Country people generally immerſe a ſtrained limb in cold water. This is very proper, provided it be done immediately, and not kept in too long.

Wrapping a garter, or ſome other bandage, pretty tight about the ſtrained part, is likewiſe of uſe. It helps to reſtore the proper tone of the veſſels, and prevents the action of the parts from increaſing the diſeaſe. It ſhould not, however, be applied too tight. I have frequently known bleeding near the affected part have a very good effect: but what we would recommend above all is *eaſe*. It is more to be depended upon than any medicine, and ſeldom fails to remove the complaint. The parts affected generally remain weak after diſlocations, fractures, and ſtrains. There is no application equal to cold water, poured once or twice a-day on the part from a tea-pot, and afterwards rubbing ſmartly with flannel or the fleſh-bruſh*.

* A great many external applications are recommended for ſtrains, ſome of which do good, and others hurt. The following are ſuch as may be uſed with the greateſt ſafety, viz. poul-

OF RUPTURES.

Children and old people are moſt liable to ruptures. In the former, it is generally occaſioned by exceſſive crying, coughing, vomiting, or the like. In the latter, it is commonly the effect of blows or violent exertions of the ſtrength, as leaping, carrying great weights, &c. In both, a relaxed habit, indolence, and very moiſt diet, diſpoſe the body to this diſeaſe.

A rupture ſometimes proves fatal before it is diſcovered. Whenever ſickneſs, vomiting, and obſtinate coſtiveneſs give reaſon to ſuſpect an obſtruction of the bowels all thoſe places where ruptures uſually happen ought carefully to be examined. The protruſion of a very ſmall part of the gut will occaſion all theſe ſympoms; and, if not reduced in due time, may prove mortal.

On the firſt appearance of a rupture in an infant, it ought to be laid upon its back, with its head very low. While in this poſture, if the gut does not return of itſelf, it may eaſily be put up by gentle preſſure. After it is returned, a piece of ſticking-plaſter may be applied over the part, and a proper truſs or bandage muſt be conſtantly worn for a conſiderable time. The method of making and applying theſe rupture-bandages for children is pretty well known. The child muſt, as far as poſſible, be kept from crying, and from all violent exertions, till the rupture is quite healed*.

tices made of ſtale beer or vinegar and oat-meal, camphorated ſpirits of wine, Mindererus's ſpirit, volatile liniment, volatile aromatic ſpirit, diluted with a double quantity of water, and the common fomentation, with the addition of brandy or ſpirit of wine.

* The cold bath, uſed daily, and for a conſiderable time, is a capital remedy for this complaint in children.

In adults, when the gut has been forced down with great violence, or happens from any cauſe to be inflamed, there is often great difficulty in returning it, and ſometimes the thing is quite impracticable without an operation; a deſcription of which is foreign to our purpoſe. As I have been fortunate enough, however, always to ſucceed in my attempts to return the gut, without having recourſe to any other means than what are in the power of every man, I ſhall briefly mention the method which I generally purſue.

After the patient has been bled, he muſt be laid upon his back, with his head very low, and his breech raiſed high with pillows. In this ſituation flannel-cloths wrung out of a decoction of mallows and camomile-flowers, or, if theſe are not at hand, of warm water, muſt be applied for a conſiderable time. A clyſter made of this decoction, with a table ſpoonful of butter and an ounce or two of ſalt, may be afterwards thrown up. If theſe ſhould not prove ſucceſsful, recourſe muſt be had to preſſure. If the tumor be very hard, this muſt be continued for a conſiderable time, for it is not force which ſucceeds here. The operator, at the ſame time that he makes a preſſure with the palms of his hand, muſt with his fingers artfully conduct the gut in by the ſame aperture through which it came out. The manner of doing this can be much eaſier conceived than deſcribed. Should theſe endeavours prove ineffectual, clyſters of the ſmoke of tobacco may be tried. Theſe have been often known to ſucceed where every other method failed.

There is reaſon to believe that, by perſiſting in the uſe of theſe, and ſuch other means as the circumſtances of the caſe may ſuggeſt, moſt *hernias* might be reduced without an operation. Cutting for the *hernia* is a nice and difficult matter. I would therefore

therefore adviſe ſurgeons to try every method of returning the gut before they have recourſe to the knife. I have once and again ſucceed by perſevering in my endeavours, after eminent ſurgeons had declared the reduction of the gut impracticable without an operation*.

An adult, after the gut has been returned, muſt wear a ſteel bandage. It is needleſs to deſcribe this, as it may always be had ready-made from the artiſts. Such bandages are generally uneaſy to the wearer for ſome time, but by cuſtom they become quite eaſy. No perſon who has had a rupture after he arrived at man's eſtate ſhould ever be without one of theſe bandages.

Perſons who have a rupture ought carefully to avoid all violent exercife, carrying great weights leaping, running, and the like. They ſhould likewiſe avoid windy aliment and ſtrong liquors; and ſhould carefully guard againſt catching cold.

* I would here beg leave to recommend it to every practitioner, when his patient complains of pain in the belly with obſtinate coſtiveneſs, to examine the groins and every place where a rupture may happen, in order that it may be immediately reduced. By neglecting this, many periſh who were not ſuſpected to have had ruptures till after they were dead. I have known this happen where half a dozen of the faculty were in attendance.

CHAP.

CHAP LIV.

Of Caſualties.

IT is certain that life, when to all appearance loſt, may often, by due care, be reſtored. Accidents frequently prove fatal, merely becauſe proper means are not uſed to counteract their effects. No perſon ought to be looked upon as killed by any accident, unleſs where the ſtructure of the heart, brain, or ſome organ neceſſary to life, is evidently deſtroyed. The action of theſe organs may be ſo far impaired as even to be for ſome time imperceptible, when life is by no means gone. In this caſe, however, if the fluids be ſuffered to grow cold, it may be impoſſible to put them again in motion, even though the ſolids ſhould recover their power of acting. Thus, when the motion of the lungs has been ſtopt by unwholeſome vapour, the action of the heart by a ſtroke on the breaſt, or the functions of the brain by a blow on the head, if the perſon be ſuffered to grow cold, he will in all probability continue ſo; but, if the body be kept warm, as ſoon as the injured part has recovered its power of acting, the fluids will again begin to move, and all the vital functions will be reſtored.

It is a horrid cuſtom immediately to conſign over to death every perſon who has the misfortune, by a fall, a blow, or the like, to be deprived of the appearance of life. The unhappy perſon, inſtead of being carried into a warm houſe, and laid by the fire, or put to a warm bed, is generally hurried away to ſome damp houſe, where, after a fruitleſs attempt has been made to bleed him, perhaps by one who knew

knew nothing of the matter, he is given over for dead, and no further notice taken of him. This conduct ſeems to be the reſult of ignorance, ſupported by an ancient ſuperſtitious notion, which forbids the body of any perſon killed by accident to be laid in an houſe that is inhabited. What the ground of this ſuperſtition may be, we ſhall not pretend to inquire; but ſurely the conduct founded upon it is contrary to all the principles of reaſon, humanity, and common ſenſe.

When a perſon ſeems to be ſuddenly deprived of life, our firſt buſineſs is to inquire into the cauſe. We ought carefully to obſerve whether any ſubſtance be lodged in the wind-pipe or gullet; and, if that is the caſe, attempts muſt be made to remove it. When unwholeſome air is the cauſe, the patient ought immediately to be removod out of it. When the cauſe cannot be ſuddenly removed, our great aim muſt be to keep up the vital warmth by rubbing the patient with hot cloths, or ſalt, and covering his body with warm ſand, aſhes, or the like.

I ſhould now proceed to treat more fully of thoſe accidents, which without immediate aſſiſtance, would often prove fatal, and to point out the moſt likely means for relieving the unhappy ſufferers; but as I have been happily anticipated in this part of my ſubject by the learned and humane Dr Tiſſot, I ſhall content myſelf with ſelecting ſuch of his obſervations as ſeem to be the moſt important, and adding ſuch of my own as have occurred in the courſe of practice.

OF SUBSTANCES STOPT BETWEEN THE MOUTH AND STOMACH.

Though accidents of this kind are very common, and extremely dangerous, yet they are generally the effect

effect of careleſſneſs. Children ſhould be taught to chew their food well, and to put nothing into their mouths which it would be dangerous for them to ſwallow. But children are not the only perſons guilty of this piece of imprudence. I know many adults who put pins, nails, and other ſharp-pointed ſubſtances in their mouths upon every occaſion, and ſome who even ſleep with the former there all night. This conduct is exceedingly injudicious, as a fit of coughing, or twenty other accidents, may force over the ſubſtance before the perſon is aware*.

When any ſubſtance is detained in the gullet, there are two ways of removing it, viz. either by extracting it, or puſhing it down. The ſafeſt and moſt certain way is to extract it; but this is not always the eaſieſt; it may therefore be more eligible ſometimes to thruſt it down, eſpecially when the obſtructing body is of ſuch a nature, that there is no danger from its reception into the ſtomach. The ſubſtances which may be puſhed down without danger are, all common nouriſhing ones, as bread, fleſh, fruits, and the like. All indigeſtible bodies, as cork, wood, bones, pieces of metal, and ſuch like, ought if poſſible to be extracted, eſpecially if theſe bodies be ſharp pointed, as pins, needles, fiſh-bones, bits of glaſs, &c.

When ſuch ſubſtances have not paſſed in too deep, we ſhould endeavour to extract them with our fingers, which method often ſucceeds. When they are lower, we muſt make uſe of nippers, or a ſmall pair of forceps, ſuch as ſurgeons uſe. But this attempt to extract rarely ſucceeds, if the ſubſtance be of a flexible nature, and has deſcended far into the gullet.

* A woman in one of the hoſpitals of this city lately diſcharged a great number of pins, which ſhe had ſwallowed in the courſe of her buſineſs, through an ulcer in her ſide.

If

If the fingers and nippers fail, or cannot be duly applied, crotchets, a kind of hooks, muſt be employed. Theſe may be made at once, by bending a piece of pretty ſtrong iron wire at one end. It muſt be introduced in the flat way; and for the better conducting it, there ſhould likewiſe be a curve or bending at the end it is held by, to ſerve as a kind of handle to it; which has this further uſe, that it may be ſecured by a ſtring tied to it, a circumſtance not to be omitted in any inſtrument employed on ſuch occaſions, to avoid ſuch ill accidents as have ſometimes enſued from theſe inſtruments ſlipping out of the operator's hand. After the crotchet has paſſed below the ſubſtance that obſtructs the paſſage, it is drawn up again, and hooks up the body along with it. The crotchet is alſo very convenient, when a ſubſtance ſomewhat flexible, as a pin or fiſh-bone, ſticks acroſs the gullet, the hook, in ſuch caſes, ſeizing them about their middle part, crooks and thus diſengages them; or, if they are very brittle ſubſtances, ſerves to break them.

When the obſtructing bodies are ſmall, and only ſtop up a part of the paſſage, and which may either eaſily elude the hook, or ſtraighten it by their reſiſtance, a kind of rings, made either of wire, wool, or ſilk, may be uſed. A piece of fine wire of a proper length may be bent into a circle, about the middle, of about an inch diameter, and the long unbent ſides brought parallel, and near each other: theſe are to be held in the hand, and the circular part or ring introduced into the gullet, in order to be conducted about the obſtructing body, and ſo to extract it. More flexible rings may be made of wool, thread, ſilk, or ſmall pack-thread, which may be waxed for their greater ſtrength and conſiſtence. One of theſe is to be tied faſt to a handle of iron wire, whale-bone, or any kind of flexible wood,

wood, and by this means introduced, in order to ſurround the obſtructing ſubſtance, and to draw it out. Several of theſe rings paſſed through one another may be uſed, the more certainly to lay hold of the obſtructing body, which may be involved by one, if another ſhould miſs it. Theſe rings have one advantage, which is, that when the ſubſtance to be extracted is once laid hold of, it may then, by turning the handle, be retained ſo ſtrongly in the ring thus twiſted, as to be moved every way, which muſt in many caſes be a conſiderable advantage.

Another material employed on theſe unhappy occaſions is the ſponge. Its property of ſwelling conſiderably on being wet is the principal foundation of its uſefulneſs here. If any ſubſtance is ſtopt in the gullet, but without filling up the whole paſſage, a bit of ſponge may be introduced into that part which is unſtopt, and beyond the ſubſtance. The ſponge ſoon dilates, and grows larger in this moiſt ſituation; and indeed the enlargement of it may be forwarded by making the patient ſwallow a few drops of water. Afterwards it is to be drawn back by the handle to which it is faſtened; and as it is now too large to return through the ſmall cavity by which it was conveyed in, it draws out the obſtructing body along with it.

The compreſſibility of ſponge is another foundation of its uſefulneſs in ſuch caſes. A pretty large piece of ſponge may be compreſſed or ſqueezed into a ſmall ſize, by winding a ſtring of tape cloſely about it, which may be eaſily unwound, and withdrawn, after the ſponge has been introduced. A bit of ſponge may likewiſe be compreſſed by a piece of whale-bone ſplit at one end; but this can hardly be introduced in ſuch a manner as not to hurt the patient.

I have

I have often known pins and other ſharp bodies, which had ſtuck in the throat, brought up by cauſing the perſon to ſwallow a bit of tough meat tied to a thread, and drawing it quickly up again. This is ſafer than ſwallowing ſponge, and will often anſwer the purpoſe equally well.

When all theſe methods prove unſucceſsful, there remains one more, which is, to make the patient vomit: but this can ſcarcely be of any ſervice, unleſs when ſuch obſtructing bodies are ſimply engaged in, and not hooked or ſtuck into the ſides of the gullet, as in this caſe vomiting might ſometimes occaſion further miſchief. If the patient can ſwallow, vomiting may be excited by taking half a drachm or two ſcruples of ipecacuanha in powder made into a draught. If he is not able to ſwallow, an attempt may be made to excite vomiting, by tickling his throat with a feather; and, if that ſhould not ſucceed, a clyſter of tobacco may be adminiſtered. It is made by boiling an ounce of tobacco in a ſufficient quantity of water: this has often been found to ſucceed, when other attempts to excite vomiting had failed.

When the obſtructing body is of ſuch a nature that it may with ſafety be puſhed downwards, this may be attempted by means of a ſmall wax-candle oiled, and a little heated, ſo as to make it flexible; or a piece of whale-bone, wire, or flexible wood, with a ſponge faſtened to one end.

Should it be impoſſible to extract even thoſe bodies which it is dangerous to admit into the ſtomach, we muſt then prefer the leaſt of two evils, and rather run the hazard of puſhing them down than ſuffer the patient to periſh in a few minutes; and we ought to ſcruple this reſolution the leſs, as a great many inſtances have happened, where the ſwallowing of ſuch hurtful and indigeſtible ſubſtances has been followed by no diſorder.

Whenever it is manifeſt that all endeavours either to extract or puſh down the ſubſtance muſt prove ineffectual, they ſhould be diſcontinued; becauſe the inflammation occaſioned by perſiſting in them might be as dangerous as the obſtruction itſelf. Some have died in conſequence of the inflammation, even after the body which cauſed the obſtruction had been entirely removed.

While the means recommended above are making uſe of, the patient ſhould often ſwallow, or, if he cannot, he ſhould frequently receive by injection through a crooked tube or pipe that may reach down to the gullet, ſome emollient liquor, as warm milk and water, barley-water, or a decoction of mallows. Injections of this kind not only ſoften and ſoothe the irritated parts, but, when thrown in with force, are often more ſucceſsful in looſening the obſtruction than all attempts with inſtruments.

When, after all our endeavours, we are obliged to leave the obſtructing body in the part, the patient muſt be treated as if he had an inflammatory diſeaſe. He ſhould be bled, kept upon a low diet, and have his whole neck ſurrounded with emollient poultices. The like treatment muſt alſo be uſed, if there be any occaſion to expect an inflammation of the paſſages, though the obſtructing body be removed.

A proper degree of agitation has ſometimes looſened the inhering body more effectually than inſtruments. Thus, a blow on the back has often forced up a ſubſtance which ſtuck in the gullet; but this is ſtill more proper and efficacious when the ſubſtance gets into the wind-pipe. In this caſe, vomiting and ſneezing are likewiſe to be excited. Pins, which ſtuck in the gullet, have been frequently diſcharged by riding on horſeback, or in a carriage.

When any indigeſtible ſubſtance has been forced down into the ſtomach, the patient ſhould uſe a very mild and ſmooth diet, conſiſting chiefly of fruits and farinaceous ſubſtances, as puddings, pottage, and ſoups. He ſhould avoid all heating and irritating things, as wine, punch, pepper, and ſuch like; and his drink ſhould be milk and water, barley-water, or whey.

When the gullet is ſo ſtrongly and fully cloſed, that the patient can receive no food by the mouth, he muſt be nouriſhed by clyſters of ſoup, jelly, and the like.

When the patient is in danger of being immediately ſuffocated, and all hope of freeing the paſſage is vaniſhed, ſo that death ſeems at hand, if reſpiration be not reſtored; the operation of *bronchotomy*, or opening of the wind-pipe, muſt be directly performed. As this operation is neither difficult to an expert ſurgeon, nor very painful to the patient, and is often the only method which can be taken to preſerve life in theſe emergencies, we thought proper to mention it, though it ſhould only be attempted by perſons ſkilled in ſurgery.

OF DROWNED PERSONS.

When a perſon has remained above a quarter of an hour under water, there can be no conſiderable hopes of his recovery. But as ſeveral circumſtances may happen to have continued life, in ſuch an unfortunate ſituation, beyond the ordinary term, we ſhould never too ſoon reſign the unhappy object to his fate, but try every method for his relief, as there are many well atteſted proofs of the recovery of perſons to life and health, who had been taken out of the water apparently dead, and who remained a conſiderable time without exhibiting any ſigns of life.

The

The firſt thing to be done, after the body is taken out of the water, is to convey it as ſoon as poſſible to ſome convenient place, where the neceſſary operations for its recovery may be performed. In doing this, care muſt be taken not to bruiſe or injure the body by carrying it in any unnatural poſture, with the head downwards, or the like. If an adult body, it ought to be laid on a bed, or on ſtraw, with the head a little raiſed, and carried on a cart or on men's ſhoulders, and kept in as natural and eaſy a poſition as poſſible. A ſmall body may be carried in the arms.

In attempting to recover perſons apparently drowned, the principal intention to be purſued is, *to reſtore the natural warmth*, upon which all the vital functions depend; and to excite theſe functions by the application of ſtimulants, not only to the ſkin, but likewiſe to the lungs, inteſtines, &c.

Though cold was by no means the cauſe of the perſon's death, yet it will prove an effectual obſtacle to his recovery. For this reaſon, after ſtripping him of his wet clothes, his body muſt be ſtrongly rubbed for a conſiderable time with coarſe linen cloths, as warm as they can be made; and, as ſoon as a well-heated bed can be got ready, he may be laid into it, and the rubbing ſhould be continued. Warm cloths ought likewiſe to be frequently applied to the ſtomach and bowels, and hot bricks, or bottles of warm water, to the ſoles of his feet, and to the palms of his hands.

Strong volatile ſpirits ſhould be frequently applied to the noſe; and the ſpine of the back and pit of the ſtomach may be rubbed with warm brandy or ſpirit of wine. The temples ought alſo to be chafed with volatile ſpirits; and ſtimulating powders may be blown up the noſtrils.

To renew the breathing, the lungs may be inflated by blowing through one of the noſtrils, and at the ſame time keeping the other cloſe. Dr Monro for this purpoſe recommends a wooden pipe, fitted at one end for filling the noſtril, and at the other for receiving the pipe of a pair of bellows, to be employed for the ſame purpoſe, if neceſſary.

When air cannot be forced into the cheſt by the mouth or noſe, it may be neceſſary to make an opening into the wind-pipe for this purpoſe. It is needleſs, however, to ſpend time in deſcribing this operation, as it ſhould not be attempted unleſs by perſons ſkilled in ſurgery.

While theſe things are doing, ſome of the attendants ought to be preparing a warm bath, into which the perſon ſhould be put, if the above endeavours prove ineffectual. Where there are no conveniences for uſing the warm bath, the body may be covered with warm ſalt, ſand, aſhes, grains, or ſuch like. Tiſſot mentions an inſtance of a girl who was reſtored to life, after ſhe had been taken out of the water, ſwelled, bloated, and to all appearance dead, by laying her naked body upon hot aſhes, covering her with others equally hot, putting a bonnet round her head, and a ſtocking round her neck ſtuffed with the ſame, and heaping coverings over all. After ſhe had remained half an hour in this ſituation, her pulſe returned, ſhe recovered ſpeech, and cried out, *I freeze, I freeze*; a little cherry-brandy was given her, and ſhe remained buried as it were under the aſhes for eight hours; afterwards ſhe was taken out, without any other complaint except that of laſſitude or wearineſs, which went off in a few days. The Doctor mentions likewiſe an inſtance of a man who was reſtored to life after he had remained ſix hours under water, by the heat of a dunghill.

Till

Till the patient ſhews ſome ſigns of life, and is able to ſwallow, it would be uſeleſs and even dangerous to pour liquors into his mouth. His lips however, and tongue may be frequently wet with a feather dipt in warm brandy or other ſtrong ſpirits; and, as ſoon as he has recovered the power of ſwallowing, a little warm wine, or ſome other cordial, ought every now and then to be adminiſtered.

We are by no means to diſcontinue our aſſiſtance as ſoon as the patients diſcover ſome tokens of life, ſince they ſometimes expire after theſe firſt appearances of recovering. The warm and ſtimulating applications are ſtill to be continued, and ſmall quantities of ſome cordial liquor ought frequently to be adminiſtered. Laſtly, though the perſon ſhould be manifeſtly re-animated, there ſometimes remain an oppreſſion, a cough, and a feveriſhneſs, which effectually conſtitute a diſeaſe. In this caſe it will be neceſſary to bleed the patient in the arm, and to cauſe him to drink plentifully of barley-water, elder-flower-tea, or any other ſoft pectoral infuſions.

Such perſons as have the misfortune to be deprived of the appearances of life, by a fall, a blow, ſuffocation, or the like, muſt be treated nearly in the ſame manner as thoſe who have been for ſome time under water. I once attended a patient who was ſo ſtunned by a fall from a horſe, that for above ſix hours he ſcarcely exhibited any ſigns of life; yet this man, by being bled, and proper methods taken to keep up the vital warmth, recovered, and in a few days was perfectly well. Dr Alexander gives an inſtance to the ſame purpoſe, in the Edinburgh Phyſical and Literary Eſſays, of a man who was to all appearance killed by a blow on the breaſt, but recovered upon being immerſed for ſome time in warm water. Theſe, and other inſtances of a ſimi-

lar nature, which might be adduced, amount to a full proof of this fact, that many of thoſe unhappy perſons who loſe their lives by falls, blows, and other accidents, might be ſaved *by the uſe of proper means duly perſiſted in.*

OF NOXIOUS VAPOURS.

Air may be many ways rendered noxious, or even deſtructive to animals. This may either happen from its vivifying principle being deſtroyed, or from ſubtle exhalations with which it is impregnated. Thus air that has paſſed through burning fuel is neither capable of ſupporting fire nor the life of animals. Hence the danger of ſleeping in cloſe chambers with charcoal fires. Some indeed ſuppoſe the danger here proceeds from the ſulphureous oil contained in the charcoal, which is ſet at liberty and diffuſed all over the chamber; while others imagine it is owing to the air of the room being charged with phlogiſton. Be this as it may, it is a ſituation carefully to be avoided. Indeed, it is dangerous to ſleep in a ſmall apartment, with a fire of any kind. I lately ſaw four perſons who had been ſuffocated by ſleeping in an apartment where a ſmall fire of coal had been left burning.

The vapour which exhales from wine, cyder, beer, or other liquors, in the ſtate of fermentation, contains ſomething poiſonous, which kills in the ſame manner as the vapour of coal. Hence there is always danger in going into cellars where a large quantity of theſe liquors is in a ſtate of fermentation, eſpecially if they have been cloſe ſhut up for ſome time. There have been many inſtances of perſons ſtruck dead on entering ſuch places, and of others who have with difficulty eſcaped.

When

When ſubterraneous caves, that have been very long ſhut, are opened, or when deep wells are cleaned, which have not been emptied for ſeveral years, the vapours ariſing from them produce the ſame effects as thoſe mentioned above. For this reaſon, no perſon ought to venture into a well, pit, cellar, or any place that is damp, and has been long ſhut up, till the air has been ſufficiently purified, by burning gunpowder in it. It is eaſy to know, as has been obſerved in a former part of this work, when the air of ſuch places is unwholeſome, by letting down a lighted candle, throwing in burning fuel, or the like. If theſe continue to burn, people may ſafely venture in; but where they are ſuddenly extinguiſhed, no one ought to enter till the air has been firſt purified by fire.

The offenſive ſmell of lamps and of candles, eſpecially when their flames are extinguiſhed, operate like other vapours, though with leſs violence, and leſs ſuddenly. There have, however, been inſtances of people killed by the fumes of lamps which had been extinguiſhed in a cloſe chamber, and perſons of weak delicate breaſts generally find themſelves quickly oppreſſed in apartments illuminated with many candles.

Such as are ſenſible of their danger in theſe ſituations, and retreat ſeaſonably from it, are generally relieved as ſoon as they get into the open air, or, if they have any remaining uneaſineſs, a little water and vinegar, or lemonade, drank hot, affords them relief. But when they are ſo far poiſoned, as to have loſt their feeling and underſtanding, the following means muſt be uſed for their recovery:

The patient ſhould be expoſed to a very pure, freſh, and open air; and volatile ſalts, or other ſtimulating ſubſtances, held to his noſe. His legs ought to be put into warm water, and well rubbed.

As ſoon as he can ſwallow, ſome lemonade, or water and vinegar, with the addition of a little nitre, may be given him.

Nor are ſharp clyſters by any means to be neglected; theſe may be made, by adding to the common clyſter, ſyrup of buckthorn and tincture of ſenna, of each two ounces; or, in their ſtead, half an ounce of Venice turpentine diſſolved in the yolk of an egg. Should theſe things not be at hand, two or three large ſpoonfuls of common ſalt may be put into the clyſter. The ſame means, if neceſſary, which were recommended in the former part of this chapter, may be uſed to reſtore the circulation, warmth, &c.

Dr Frewen, of Suſſex, mentions the caſe of a young man who was ſtupefied by the ſmoke of ſea-coal but was recovered by being plunged into cold water, and afterwards laid in a warm bed.

The practice of plunging perſons ſuffocated by noxious vapours in cold water, would ſeem to be ſupported by the common experiment of ſuffocating dogs in the *grotto del cani*, and afterwards recovering them, by throwing them into the neighbouring lake.

EFFECTS OF EXTREME COLD.

When cold is extremely ſevere, and a perſon is expoſed to it for a long time, it proves mortal, in conſequence of its ſtopping the circulation in the extremities, and forcing too great a proportion of blood towards the brain; ſo that the patient dies of a kind of apoplexy, preceded by great ſleepineſs. The traveller, in this ſituation, who finds himſelf begin to grow drowſy, ſhould redouble his efforts to extricate himſelf from the imminent danger he is expoſed to. This ſleep, which he might

conſider as ſome alleviation of his ſufferings, would, if indulged, prove his laſt.

Such violent effects of cold are happily not very common in this country; it frequently happens, however, that the hands or feet of travellers are ſo benumbed or frozen, as to be in danger of a mortification, if proper means are not uſed to prevent it. The chief danger in this ſituation ariſes from the ſudden application of heat. It is very common, when the hands or feet are pinched with cold, to hold them to the fire; yet reaſon and obſervation ſhew that this is a moſt dangerous and imprudent practice.

Every peaſant knows, if frozen meat, fruits, or roots of any kind, be brought near the fire, or put into warm water, they will be deſtroyed, by rottenneſs or a kind of mortification; and that the only way to recover them, is to immerſe them for ſome time in very cold water. The ſame obſervation holds with regard to animals in this condition.

When the hands or feet are greatly benumbed with cold, they ought either to be immerſed in cold water, or rubbed with ſnow, till they recover their natural warmth and ſenſibility; after which the perſon may be removed into an apartment a little warmer, and may drink ſome cups of tea, or an infuſion of elder-flowers, ſweetened with honey. Every perſon muſt have obſerved, when his hands were even but ſlightly affected with cold, that the beſt way to warm them was by waſhing them in cold water, and continuing to rub them well for ſome time.

When a perſon has been ſo long expoſed to the cold, that all appearances of life are gone, it will be neceſſary to rub him all over with ſnow or cold water; or, what will anſwer better, if it can be obtained, to immerſe him in a bath of the very coldeſt

coldeſt water. There is the greateſt encouragement to perſiſt in the uſe of theſe means, as we are aſſured that perſons who had remained in the ſnow, or had been expoſed to the freezing air during five or ſix ſucceſſive days, and who had diſcovered no marks of life for ſeveral hours, have nevertheleſs been revived.

I have always thought, that the whitloes, kibes, chilblains, and other inflammations of the extremities, which are ſo common among the peaſants in the cold ſeaſon, were chiefly occaſioned by their ſudden tranſitions from cold to heat. After they have been expoſed to an extreme degree of cold, they immediately apply their hands and feet to the fire, or, if they have occaſion, plunge them into warm water, by which means, if a mortification does not happen, an inflammation ſeldom fails to enſue. Moſt of the ill conſequences from this quarter might be eaſily avoided, by only obſerving the precautions mentioned above.

EFFECTS OF EXTREME HEAT.

The effects of extreme heat, though not ſo common in this country, are no leſs fatal, and much more ſudden than thoſe of cold. In hot countries people frequently drop down dead in the ſtreets, exhauſted with heat and fatigue. In this caſe, if any warm cordial can be poured into the mouth, it ought to be done. If this cannot be effected, they may be thrown up in form of a clyſter. Volatile ſpirits, and other things of a ſtimulating nature, may be applied to the ſkin, which ſhould be well rubbed with coarſe cloths, or other ſtimulating things.

CHAP. LV.

Of Fainting Fits, and other Caſes which require immediate Aſſiſtance.

STRONG and healthy perſons, who abound with blood, are often ſeized with ſudden fainting fits, after violent exerciſe, drinking freely of warm or ſtrong liquors, expoſure to great heat, intenſe application to ſtudy, or the like.

In ſuch caſes the patient ſhould be made to ſmell to ſome vinegar. His temples, forehead, and wriſts ought at the ſame time to be bathed with vinegar mixed with an equal quantity of warm water; and two or three table-ſpoonfuls of vinegar, with four or five times as much water, may, if he can ſwallow, be poured into his mouth.

If the fainting proves obſtinate, or degenerates into a *ſyncope*, that is, an abolition of feeling and underſtanding, the patient muſt be bled. After the bleeding, a clyſter will be proper, and then he ſhould be kept eaſy and quiet, only giving him every half hour a cup or two of an infuſion of any mild vegetable, with the addition of a little ſugar and vinegar.

When ſwoonings, which ariſe from this cauſe, occur frequently in the ſame perſon, he ſhould, in order to eſcape them, confine himſelf to a light diet, conſiſting chiefly of bread, fruits, and other vegetables. His drink ought to be water, or ſmall liquors, and he ſhould ſleep but moderately, and take much exerciſe.

But fainting fits proceed often from a defect of blood. Hence they are very ready to happen after great

great evacuations of any kind, obſtinate watching, want of appetite, or ſuch like. In theſe an almoſt directly oppoſite courſe to that mentioned above muſt be purſued, if a weak pulſe, paleneſs and coldneſs attend.

The patient ſhould be laid in bed, with his head low and being covered, ſhould have his legs, thighs, arms, and his whole body rubbed ſtrongly with hot flannels. Hungary water, volatile ſalts, or ſtrong-ſmelling herbs, as rue, mint, or roſemary, may be held to his noſe. His mouth may be wet with a little hartſhorn in water; and, if he can ſwallow, ſome hot wine, mixed with ſugar and cinnamon, which is an excellent cordial, may be poured into his mouth. A compreſs of flannel, dipt in hot wine or brandy, muſt be applied to the pit of the ſtomach, and warm bricks, or bottles filled with hot water, laid to the feet.

As ſoon as the patient is recovered a little, he ſhould take ſome ſtrong ſoup or broth, or a little bread or biſcuit ſoaked in hot-ſpiced wine. To prevent the return of the fits, he ought to take often, but in ſmall quantities, ſome light, yet ſtrengthening, nouriſhment, as panada made with ſoup inſtead of water, new laid eggs lightly poached, chocolate, light roaſt meats, jellies, and ſuch like.

Thoſe fainting fits, which are the effect of bleeding, or of the violent operation of purges, belong to this claſs. Such as happen after artificial bleeding are ſeldom dangerous, generally terminating as ſoon as the patient is laid upon the bed; indeed, perſons ſubject to this kind ſhould always be bled lying, in order to prevent it. Should the fainting, however, continue longer than uſual, volatile ſpirits may be held to the noſe, and rubbed on the temples, &c.

When fainting is the effect of too ſtrong or acrid purges or vomits, the patient muſt be treated in all reſpects

reſpects as if he had taken poiſon. He ſhould be made to drink plentifully of milk, warm water, and oil, barley-water, or ſuch like; emollient clyſters will likewiſe be proper, and the patient's ſtrength ſhould be recruited, by giving him generous cordials, and anodyne medicines.

Faintings are often occaſioned by indigeſtion. This may either proceed from the quantity or quality of the food. When the former of theſe is the cauſe, the cure will be beſt performed by vomiting, which may be promoted by cauſing the patient to drink a weak infuſion of camomile-flowers, *carduus benedictus*, or the like. When the diſorder proceeds from the nature of the food, the patient, as in the caſe of weakneſs, muſt be revived by ſtrong ſmells, &c. after which he ſhould be made to ſwallow a large quantity of light warm fluid, which may ſerve to drown, as it were, the offending matter, to ſoften its acrimony, and either to effect a diſcharge of it by vomiting, or force it down into the inteſtines.

Even diſagreeable ſmells will ſometimes occaſion ſwoonings, eſpecially in people of weak nerves. When this happens, the patient ſhould be carried into the open air, have ſtimulating things held to his noſe, and thoſe ſubſtances which are diſagreeable to him ought immediately to be removed. But we have already taken notice of ſwoonings which ariſe from nervous diſorders, and ſhall therefore ſay no more upon that head.

Fainting fits often happen in the progreſs of diſeaſes. In the beginning of putrid diſeaſes they generally denote an oppreſſion at ſtomach, or a maſs of corrupted humors, and they ceaſe after evacuations either by vomit or ſtool. When they occur at the beginning of malignant fevers, they indicate great danger. In each of theſe caſes, vinegar uſed both externally and internally is the beſt remedy during

ring the paroxyſm, and plenty of lemon-juice and water after it. Swoonings which happen in diſeaſes accompanied with great evacuations, muſt be treated like thoſe which are owing to weakneſs, and the evacuations ought to be reſtrained. When they happen towards the end of a violent fit of an intermitting fever, or at that of each exacerbation of a continual fever, the patient muſt be ſupported by ſmall draughts of wine and water*.

Delicate and hyſteric women are very liable to ſwooning or fainting fits after delivery. Theſe might be often prevented by generous cordials, and the admiſſion of freſh air. When they are occaſioned by exceſſive flooding, it ought by all means to be reſtrained. They are generally the effect of mere weakneſs or exhauſtion. Dr Engleman relates the caſe of a woman "in childbed, who, after "being happily delivered, ſuddenly fainted, and "lay upwards of a quarter of an hour apparently "dead. A phyſician was ſent for; her own maid, "in the mean while, being out of patience at his "delay, attempted to aſſiſt her herſelf, and extending herſelf upon her miſtreſs, applied her mouth "to her's, blew in as much breath as ſhe poſſibly "could, and in a very ſhort time the exhauſted "woman awaked as out of a profound ſleep; when "proper things being given her, ſhe ſoon recovered.

"The maid being aſked how ſhe came to think "of this expedient, ſaid ſhe had ſeen it practiſed "at Altenburgh, by midwives, upon children with "the happieſt effect."

* It ſometimes happens that this weakneſs occurs in the exacerbation of fevers from too much fullneſs and oppreſſion. In this caſe bleeding is the remedy. The propriety of uſing it may be known by the pulſe.

We

We mention this caſe chiefly that other midwives may be induced to follow ſo laudable an example. Many children are born without any ſigns of life, and others expire ſoon after the birth, who might, without all doubt, by proper care, be reſtored to life.

From whatever cauſe fainting fits proceed, freſh air is always of the greateſt importance to the patient. By not attending to this circumſtance, people often kill their friends while they are endeavouring to ſave them. Alarmed at the patient's ſituation, they call in a crowd of people to his aſſiſtance, or perhaps to witneſs his exit, whoſe breathing exhauſts the air, and increaſes the danger. There is not the leaſt doubt but this practice, which is very common among the lower ſort of people, often proves fatal, eſpecially to the delicate, and ſuch perſons as fall into fainting fits from mere exhauſtion, or the violence of ſome diſeaſe. No more perſons ought ever to be admitted into the room where a patient lies in a ſwoon than are abſolutely neceſſary for his aſſiſtance, and the windows of the apartment ſhould always be opened, at leaſt as far as to admit a ſtream of freſh air.

Perſons ſubject to frequent ſwoonings, or fainting fits, ſhould neglect no means to remove the cauſe of them, as their conſequences are always injurious to the conſtitution. Every fainting fit leaves the perſon in dejection and weakneſs; the ſecretions are thereby ſuſpended, the humors diſpoſed to ſtagnation, coagulations and obſtructions are formed, and, if the motion of the blood be totally intercepted, or very conſiderably checked, *polypuſes* are ſometimes formed in the heart or larger veſſels. The only kind of ſwoonings not to be dreaded are thoſe which ſometimes mark the *criſis*

in fevers; yet even theſe ought, as ſoon as poſſible, to be removed.

OF INTOXICATION.

The effects of intoxication are often fatal. No kind of poiſon kills more certainly than an overdoſe of ardent ſpirits. Sometimes, by deſtroying the nervous energy, they put an end to life at once; but in general their effects are more ſlow, and in many reſpects ſimilar to thoſe of opium. Other kinds of intoxicating liquors may prove fatal when taken to exceſs, as well as ardent ſpirits; but they may generally be diſcharged by vomiting, which ought always to be excited when the ſtomach is overcharged with liquor.

More of thoſe unhappy perſons, who die intoxicated, loſe their lives from an inability to conduct themſelves than from the deſtructive quality of the liquor. Unable to walk, they tumble down, and lie in ſome awkward poſture, which obſtructs the circulation or breathing, and often continue in this ſituation till they die. No drunken perſon ſhould be left by himſelf, till his clothes have been looſened, and his body laid in ſuch a poſture as is moſt favourable for continuing the vital motions, diſcharging the contents of the ſtomach, &c. The beſt poſture for diſcharging the contents of the ſtomach, is to lay the perſon upon his belly; when aſleep he may be laid on his ſide, with his head a little raiſed, and particular care muſt be taken that his neck be no way bent, twiſted, or have any thing too tight about it.

The exceſſive degree of thirſt occaſioned by drinking ſtrong liquors, often induces people to quench it by taking what is hurtful. I have known fatal

fatal conſequences even from drinking freely of milk after a debauch of wine or four punch; theſe acid liquors, together with the heat of the ſtomach, having coagulated the milk in ſuch a manner that it could never be digeſted. The ſafeſt drink after a debauch is water with a toaſt, tea, infuſions of balm, ſage, barley-water, and ſuch like. If the perſon wants to vomit, he may drink a weak infuſion of camomile-flowers, or lukewarm water and oil; but in this condition vomiting may generally be excited by only tickling the throat with the finger or a feather.

Inſtead of giving a detail of all the different ſymptoms of intoxication which indicate danger, and propoſing a general plan of treatment for perſons in this ſituation, I ſhall briefly relate the hiſtory of a caſe which lately fell under my own obſervation, wherein moſt of thoſe ſymptoms uſually reckoned dangerous occurred, and where the treatment was ſucceſsful.

A young man, about fifteen years of age, had, for a hire, drank ten glaſſes of ſtrong brandy. He ſoon after fell faſt aſleep, and continued in that ſituation for near twelve hours, till at length his uneaſy manner of breathing, the coldneſs of the extremities, and other threatening ſymptoms alarmed his friends, and made them ſend for me. I found him ſtill ſleeping, his countenance ghaſtly, and his ſkin covered with a cold clammy ſweat. Almoſt the only ſigns of life remaining were, a deep laborious breathing, and a convulſive motion or agitation of his bowels.

I tried to rouſe him, but in vain, by pinching, ſhaking, applying volatile ſpirits, and other ſtimulating things to his noſe, &c. A few ounces of blood were likewiſe taken from his arm, and a mixture of vinegar and water was poured into his mouth; but, as he could not ſwallow, very little of this got

into the ſtomach. None of theſe things having the leaſt effect, and the danger ſeeming to increaſe, I ordered his legs to be put into warm water, and a ſharp clyſter to be immediately adminiſtered. This gave him a ſtool, and was the firſt thing that relieved him. It was afterwards repeated with the ſame happy effect, and ſeemed to be the chief cauſe of his recovery. He then began to ſhow ſome ſigns of life, took drink when it was offered him, and came gradually to his ſenſes. He continued, however, for ſeveral days weak and feveriſh, and complained much of a ſoreneſs in his bowels, which gradually went off, by means of a ſlender diet, and cool mucilaginous liquors.

This young man would probably have been ſuffered to die, without any aſſiſtance being called, had not a neighbour, a few days before, who had been adviſed to drink a bottle of ſpirits to cure him of an ague, expired under very ſimilar circumſtances.

OF SUFFOCATION AND STRANGLING.

Theſe may ſometimes proceed from an infraction of the lungs, produced by viſcid clammy humors, or a ſpaſdomic affection of the nerves of that organ. Perſons who feed groſsly and abound in rich blood, are very liable to ſuffocating fits from the former of theſe cauſes. Such ought, as ſoon as they are attacked, to be bled, to receive an emollient clyſter, and to take frequently a cup of diluting liquor with a little nitre in it They ſhould likewiſe receive the ſteams of hot vinegar into their lungs by breathing.

Nervous and aſthmatic perſons are moſt ſubject to ſpaſmodic affections of the lungs. In this caſe the patient's legs ſhould be immerſed in warm water, and the ſteams of vinegar applied as above. Warm

diluting

diluting liquors ſhould likewiſe be drank; to a cup of which a tea-ſpoonful of the paregoric elixir may occaſionally be added. Burnt paper, feathers, or leather, may be held to the patient's noſe, and freſh air ſhould be freely admitted to him.

Infants are often ſuffocated by the careleſſneſs or inattention of their nurſes*. An infant when in bed ſhould always be laid ſo, that it cannot tumble down with its head under the bed-clothes; and when in a cradle, its face ought never to be covered. A ſmall degree of attention to theſe two ſimple rules would ſave the lives of many infants, and prevent others from being rendered weak and ſickly all their days by the injuries done to their lungs.

Inſtead of laying down a plan for the recovery of infants who are ſuffocated, or over-laid as it is termed by their nurſes, I ſhall give the hiſtory of a caſe related by Monſieur *Janin*, of the Royal College of Surgery at Paris, as it was attended with ſucceſs, and contains almoſt every thing that can be done on ſuch occaſions.

A nurſe having had the misfortune to over-lay a child, he was called in, and found the infant without any ſigns of life; no pulſation in the arteries, no reſpiration, the face livid, the eyes open, dull, and tarniſhed, the noſe full of ſnivel, the mouth gaping; in ſhort it was almoſt cold. Whilſt ſome linen clothes and a parcel of aſhes were warming, he had the boy unſwathed, and laid him in a warm bed, and on the right ſide. He then was rubbed all over with fine linen, for fear of fretting his ten-

* Theſe accidents are not always the effects of careleſſneſs. I have known an infant over-laid by its mother being ſeized in the night with an hyſteric fit. This ought to ſerve as a caution againſt employing hyſteric women as nurſes; and ſhould likewiſe teach ſuch women never to lay an infant in the ſame bed with themſelves, but in a ſmall adjacent one.

der and delicate ſkin. As ſoon as the aſhes had received their due degree of heat, Mr *Janin* buried him in them except the face, placed him on the ſide oppoſite to that on which he had been at firſt laid, and covered him with a blanket. He had a bottle of *eau de luce* in his pocket, which he preſented to his noſe from time to time; and between whiles ſome puffs of tobacco were blown up his noſtrils: to theſe ſucceeded the blowing into his mouth, and ſqueezing tight his noſe. Animal heat began thus to be excited gradually; the pulſations of the temporal artery were ſoon felt, the breathing became more frequent and free, and the eyes cloſed and opened alternately. At length the child fetched ſome cries expreſſive of his want of the breaſt, which being applied to his mouth, he catched at it with avidity, and ſucked as if nothing had happened to him. Though the pulſations of the arteries were by this time very well re-eſtabliſhed, and it was hot weather, yet Mr *Janin* thought it adviſable to leave his little patient three quarters of an hour longer under the aſhes. He was afterwards taken out, cleaned and dreſſed as uſual; to which a gentle ſleep ſucceeded, and he continued perfectly well.

Mr Janin mentions likewiſe an example of a young man who had hanged himſelf through deſpair, to whom he adminiſtered help as effectually as in the preceding caſe.

Mr Glover, ſurgeon in Doctors' Commons, London, relates the caſe of a perſon who was reſtored to life after twenty-nine minutes hanging, and continued in good health for many years after.

The principal means uſed to reſtore this man to life were, opening the temporal artery and the external jugular; rubbing the back, mouth, and neck, with a quantity of volatile ſpirits and oil; adminiſtering the tobacco clyſter by means of lighted pipes, and

and ſtrong frictions of the legs and arms. This courſe had been continued for about four hours, when an inciſion was made into the wind-pipe, and air blown ſtrongly through a canula into the lungs. About twenty minutes after this, the blood at the artery began to run down the face, and a ſlow pulſe was juſt perceptible at the wriſt. The frictions were continued for ſome time longer; his pulſe became more frequent, and his mouth and noſe being irritated with ſpirit of ſal ammoniac, he opened his eyes. Warm cordials were then adminiſtered to him, and in two days he was ſo well as to be able to walk eight miles.

Theſe caſes are ſufficient to ſhew what may be done for the recovery of thoſe unhappy perſons who ſtrangle themſelves in a fit of deſpair.

OF PERSONS WHO EXPIRE IN CONVULSION FITS.

Convulſion fits often conſtitute the laſt ſcene of acute or chronic diſorders. When this is the caſe, there can remain but ſmall hopes of the patient's recovery after expiring in a fit. But when a perſon, who appears to be in perfect health, is ſuddenly ſeized with a convulſion fit, and ſeems to expire, ſome attempts ought always be made to reſtore him to life. Infants are moſt liable to convulſions, and are often carried off very ſuddenly by one or more fits about the time of teething. There are many well-authenticated accounts of infants having been reſtored to life, after they had, to all appearance, expired in convulſions; but we ſhall only relate the following inſtance mentioned by Dr Johnſon in his pamphlet *on the practicability of recovering perſons viſibly dead.*

In the parish of St. *Clemens* in *Colchester*, a child of six months old, lying upon its mother's lap, having had the breast, was seized with a strong convulsion fit, which lasted so long, and ended with so total a privation of motion in the body, lungs, and pulse, that it was deemed absolutely dead. It was accordingly stripped, laid out, the passing-bell ordered to be tolled, and a coffin to be made; but a neighbouring gentlewoman who used to admire the child, hearing of its sudden death, hastened to the house, and upon examining the child found it not cold, its joints limber, and fancied that a glass she held to its mouth and nose was a little damped with the breath; upon which she took the child in her lap, sat down before the fire, rubbed it, and kept it in gentle agitation. In a quarter of an hour she felt the heart begin to beat faintly; she then put a little of the mother's milk into its mouth, continued to rub its palms and soles, found the child begin to move, and the milk was swallowed; and in another quarter of an hour she had the satisfaction of restoring, to its disconsolate mother, the babe quite recovered, eager to lay hold of the breast, and able to suck again. The child throve, had no more fits, is grown up, and at present alive.

These means, which are certainly in the power of every person, were sufficient to restore to life an infant to all appearance dead, and who, in all probability, but for the use of these simple endeavours, would have remained so. There are, however, many other things which might be done in case the above should not succeed; as rubbing the body with strong spirits, covering it with warm ashes or salt, putting it up to the neck in pretty hot water, blowing air into the lungs, throwing up warm stimulating clysters, or the smoke of tobacco, into the intestines, and such like.

When

When children are dead born, or expire ſoon after the birth, the ſame means ought to be uſed for their recovery, as if they had expired in circumſtances ſimilar to thoſe mentioned above.

Theſe directions may likewiſe be extended to adults, attention being always paid to the age and other circumſtances of the patient.

The foregoing caſes and obſervations afford ſufficient proof of the ſucceſs which may attend the endeavours of perſons totally ignorant of medicine, in aſſiſting thoſe who are ſuddenly deprived of life by any accident or diſeaſe. Many facts of a ſimilar nature might be adduced, were it neceſſary; but theſe, it is hoped, will be ſufficient to call up the attention of the public, and to excite the humane and benevolent to exert their utmoſt endeavours for the preſervation of their fellow-men.

The ſociety for the recovery of drowned perſons, inſtituted at Amſterdam in the year 1767, had the ſatisfaction to find that not fewer than 150 perſons, in the ſpace of four years, had been ſaved by the means pointed out by them, many of whom owed their preſervation to peaſants and people of no medical knowledge. But the means uſed with ſo much efficacy in recovering drowned perſons are, with equal ſucceſs, applicable to a number of caſes where the powers of life ſeem in reality to be only ſuſpended, and to remain capable of renewing all their functions, on being put into motion again. It is ſhocking to reflect, that for want of this conſideration many perſons have been committed to the grave, in whom the principles of life might have been revived.

The caſes wherein ſuch endeavours are moſt likely to be attended with ſucceſs, are all thoſe called ſudden deaths from an inviſible cauſe, as apoplexies, hyſterics, faintings, and many other diſorders where-

in perſons in a moment ſink down and expire. The various caſualties in which they may be tried are, ſuffocations from the ſulphureous damps of mines, coal-pits, &c.; the unwholeſome air of long unopened wells or caverns; the noxious vapours ariſing from fermenting liquors; the ſteams of burning charcoal; ſulphureous mineral acids; arſenical effluvia, &c.

The various accidents of drowning, ſtrangling and apparent deaths, by blows, falls, hunger, cold, &c. likewiſe furniſh opportunities of trying ſuch endeavours. Thoſe perhaps who to appearance are killed by lightning, or by any violent agitation of the paſſions, as fear, joy, ſurpriſe, and ſuch like, might alſo be frequently recovered by the uſe of proper means, as blowing ſtrongly into their lungs, &c.

The means to be uſed for the recovery of perſons ſuddenly deprived of life are nearly the ſame in all caſes; they are practicable by every one who happens to be preſent at the accident, and require no great expence, and leſs ſkill. The great aim is to reſtore the warmth and vital motions. This may in general be attempted by means of heat, frictions, bleeding, blowing air into the lungs, adminiſtering clyſters and generous cordials. Theſe muſt be varied according to circumſtances. Common ſenſe, and the ſituation of the patient, will ſuggeſt the proper manner of conducting them. Above all we would recommend *perſeverance*. People ought never to deſpair on account of diſcouraging circumſtances, or to leave off their endeavours as long as there is the leaſt hope of ſucceſs. Where much good and no hurt can be done, no one ought to grudge his labour.

It were greatly to be wiſhed, that an inſtitution, ſimilar to that of Amſterdam, was eſtabliſhed, upon a more

a more extenſive plan, in Great Britain ; and that a reward was allowed to every one who ſhould be inſtrumental in reſtoring to life a perſon ſeemingly dead*. Men will do much for fame, but ſtill more for money. Should no profit, however, be annexed to thoſe benevolent offices, the heart-felt pleaſure which a good man muſt enjoy, on reflecting that he has been the happy inſtrument of ſaving one of his fellow-creatures from an untimely grave, is itſelf a ſufficient reward.

The many ſocieties formed in different parts of Europe and America for the recovery of perſons apparently dead from drowning, &c. &c. have clearly proved the benefits produced by ſuch inſtitutions. The following directions publiſhed ſome years ſince by the Humane Society of Philadelphia are ſo intelligible as well as comprehenſive, that we have ſubjoined them here in order to give a general view of the ſubject. The ſociety, in order to render them more extenſively uſeful, have had them printed in large characters, and hung up in moſt of the public places and compting houſes of this city ; more particularly in the neighbourhood of the river, and on pumps which are much frequented in hot weather.

* The Author is happy to obſerve, that ſince the firſt publication of this work, ſeveral ſocieties have been inſtituted in Britain with the ſame benevolent intention as that of Amſterdam, and that their endeavours have proved no leſs ſucceſsful. He is likewiſe happy to obſerve, that premiums have been awarded to thoſe who have been active in their endeavours to reſtore to life perſons who had been drowned, or ſuddenly deprived of life by any accident. How much is this ſuperior to the ſuperſtitious inſtitution, which allows any man a premium who brings a dead perſon out of the water, ſo that he may receive Chriſtian burial ; but allows nothing to the perſon who brings him out alive, or who recovers him after he has been to all appearance dead.

Directions,

Directions, for recovering Perſons, who are ſuppoſed to be Dead from drowning.

I. As ſoon as the body is taken out of the water, it muſt be conveyed to a houſe, or any other place, where it can be laid dry and warm, avoiding the uſual deſtructive methods *of hanging it by the heels, rolling it on a barrel*, or *placing it acroſs a log on its belly.*

II. The clothes muſt be immediately ſtripped off, and the body wrapped up in blankets, well warmed. It ſhould be laid on its back, with the head a little raiſed. If the weather be cold, it ſhould be placed near a fire; but if the weather ſhould be warm, it will be ſufficient to place it between two blankets well heated; taking care to prevent the room from being crowded, with any perſons who are not neceſſarily employed about the body.

III. As ſoon as it can poſſibly be done, a bellows ſhould be applied to one noſtril, while the other noſtril and the mouth are kept cloſed, and the lower end of the prominent part of the wind-pipe (or that part which is called by the anatomiſts, *Pomum Adami*) is preſſed backward. The bellows is to be worked in this ſituation; and when the breaſt is ſwelled by it, the bellows ſhould ſtop, and an aſſiſtant ſhould preſs the belly upwards, to force the air out. The bellows ſhould then be applied as before, and the belly ſhould again be preſſed; and this proceſs ſhould be repeated from twenty to thirty times in a minute, ſo as to imitate natural breathing as nearly as poſſible. Some volatile ſpirits, heated, ſhould be held under the valve of the bellows, while it works. If a bellows cannot be procured, ſome perſon ſhould blow into one of the noſtrils, through a pipe

a pipe or quill, while the other noſtril and mouth are cloſed as before; or if a pipe or quill be not at hand, he ſhould blow into the mouth, while both noſtrils are cloſed; but whenever a bellows can be procured, it ſhould be preferred, as air forced in by this means, will be much more ſerviceable than air which has already been breathed.

IV. At the ſame time, the whole body ſhould be rubbed with the hand, or with hot woollen cloths. The rubbing ſhould be moderate, but continued with induſtry a long time, and particularly about the breaſt.

V. During this time, a large quantity of aſhes, or ſalt, or ſand, ſhould be heated; and as ſoon as it is milk-warm, the body ſhould be placed in it; the blowing and rubbing are then to be continued as before; and when the aſhes, or ſalt, are cooled, ſome warmer muſt be added, ſo that the whole may be kept milk-warm.

Theſe methods ſhould be continued three or four hours, as in ſeveral inſtances they have proved ſucceſsful, although no ſigns of life appeared until that time. When the patient is able to ſwallow, he ſhould take ſome wine, or rum and water; bleeding or purging ought not to be uſed, without conſulting a phyſician, who ſhould be called in as ſoon as poſſible.

To prevent the fatal effects of drinking cold Water, or cold Liquors of any kind in warm Weather.

1ſt, Avoid drinking while you are warm, or,

2d, Drink only a ſmall quantity at once, and let it remain a ſhort time in your mouth before you ſwallow it; or,

3d,

3d, Waſh your hands and face, and rinſe your mouth with cold water before you drink. If theſe precautions have been neglected, and the diſorder incident to drinking cold water hath been produced, the firſt, and in moſt inſtances, the only remedy to be adminiſtered, is ſixty drops of liquid laudanum in ſpirit and water, or warm drink of any kind.

If this ſhould fail of giving relief, the ſame quantity may be given twenty minutes afterwards.

When laudanum cannot be obtained, rum and water, or warm water ſhould be given. Vomits and bleeding ſhould not be uſed without conſulting a phyſician.

The dangerous Effects of noxious Vapours, from Wells, Cellars, fermenting Liquors, &c. may be prevented,

By procuring a free circulation of air, either by ventilators, or opening the doors or windows, where it is confined, or by changing the air, by keeping fires in the infected place, or by throwing in water, in which ſtone-lime has been diſſolved.

Theſe precautions ſhould be taken, before entering into ſuch ſuſpected places, or a lighted candle ſhould be firſt introduced, which will go out, if the air is bad. When a perſon is let down into a well, he ſhould be carefully watched, and drawn up again on the leaſt change. But when a perſon is apparently dead, from the above-mentioned cauſe, the firſt thing to be done is to remove the body to a cool place in a wholeſome air; then let the body be ſtripped, and let cold water be thrown from buckets over it for ſome time. This is particularly uſeful in caſes of apparent death from drunkenneſs.—Let the treatment now be the ſame as that for drowned

drowned perſons. The head ſhould be raiſed a little; and continued frictions, with blowing into the noſtril with a bellows, ſhould be practiſed for ſeveral hours.

In Caſes of Suffocation, from the Fumes of Burning Charcoal.

The general treatment recommended for curing the diſorders brought on by noxious vapours, is to be applied; but the dangerous effects of this may be prevented, by taking care not to ſit near it when burning; to burn it in a chimney; and where there is no chimney, to keep the door open, and to place a large tub of water in the room.

In all theſe, as well as in caſes of drowned perſons, moderate purges and bleeding are only to be uſed, with the advice of a phyſician.

To prevent the fatal Effects of Lightning.

Let your houſe be provided with an iron conductor; but when this cannot be had, avoid ſitting, or ſtanding, near the window, door, or walls of an houſe, during the time of a thunder guſt. The nearer you are placed to the middle of a room, the better. When you are not in an houſe, avoid flying to the cover of the woods, or a ſolitary tree, for ſafety.

When a perſon is ſtruck by lightning, let continued frictions and inflations of the lungs be practiſed: Let gentle ſhocks of electricity be made to paſs through the cheſt, when a ſkilful perſon can be procured to apply it; and let bliſters be applied to the breaſt.

To prevent Danger from Expoſure to the Exceſſive Heat of the Sun.

Diſorders from this cauſe, or (as they are vulgarly termed) *ſtrokes of the ſun*, may be expected, when a perſon who is expoſed to his rays, is affected with a violent head-ach, attended with throbbing or with giddineſs; where the diſorder takes place, theſe ſymptoms are followed by faintneſs and great inſenſibility, with violent heat and dryneſs of the ſkin, redneſs and dryneſs of the eyes, difficulty of breathing, and, according as the diſeaſe is more or leſs violent, with a difficulty, or entire inability of ſpeaking or moving.

To guard againſt theſe dangerous effects of heat, it will be proper,

1ſt, To avoid labour, or violent exerciſe, or expoſing yourſelf to the rays of the ſun, immediately after eating a hearty meal:

2d, To avoid drinking ſpirits of any kind, when you are thus expoſed. Theſe add an internal fire to the heat of the ſun, and are particularly hurtful in harveſt. Vinegar and water, ſweetened with molaſſes or brown ſugar, butter-milk and water, ſmall beer, whey, or milk and water, are the moſt proper drinks for people, who are expoſed to exceſſive heat. But the leſs a perſon drinks of liquors of any kind *in the forenoon*, the better will he endure the heat of a warm day. It will alſo be proper,

3d, To wear a white hat, or to cover a black one with white paper, when you are neceſſarily expoſed to the hot ſun, and to avoid ſtanding ſtill when in ſuch a ſituation.

4th, To retire into the ſhade as ſoon as you begin to be affected with pain or throbbing in the head, with giddineſs or with faintineſs.

If

If theſe precautions have been neglected, and the ſymptoms above deſcribed have come on, it will be proper,

1ſt, To remove the perſon ſo affected into a cool, dry place, and to looſen all his garments, particularly thoſe around his neck and breaſt.

2d, To examine whether the pulſe at the wriſt or temples beats forcibly, and if it does, to bleed immediately; but if the pulſe be weak, or cannot be perceived, bleeding muſt not be performed.

3d, To place his feet and legs (or if it can be done) the lower half of his body, in warm water. But if this remedy fails,

4th, Dr Tiſſot adviſes to apply linen cloths wet with cold water, or with cold water and vinegar, to the temples and all over the head.

5th, To adminiſter plentiful draughts of vinegar and water ſweetened.

In all caſes of this kind, a phyſician ſhould be ſent for, unleſs the patient recovers ſpeedily.

To prevent the Effects of exceſſive Cold.

Perſons are in danger of being deſtroyed by it, when they become very drowſy, or are affected with general numbneſs or inſenſibility of the body. As the cold which proves fatal, generally affects the feet firſt, great care ſhould be taken to keep them as warm as poſſible.

1ſt, By protecting them when you are expoſed to cold with wool, or woollen ſocks within the ſhoes or boots, or with large woollen ſtockings drawn over them, or when you ride, with hay or ſtraw wrapped round them.

2d, By keeping up a briſk circulation in the blood veſſels of the feet, by *moving them conſtantly;*

or when this is impracticable, from a confined ſituation, and two or more perſons are expoſed together.

3d, By placing their feet, *without ſhoes*, againſt each other's breaſts.

If notwithſtanding theſe precautions, a perſon ſhould be rendered ſleepy or inſenſible by cold, he muſt exert himſelf and move about quickly, for if he ſhould ſleep in the cold, he will inevitably periſh. When a perſon who is travelling in company, begins to be affected in this manner, his companions ſhould force him to walk briſkly or to run.

When cold has produced apparent death, the body ſhould be placed in a room without fire, and rubbed ſteadily with ſnow, or cloths wet with cold water, at the ſame time that the bellows is applied to the noſe, and uſed as in the caſe of drowning. This treatment ſhould be continued a long time, although no ſigns of life appear, for ſome perſons have recovered, who were to appearance lifeleſs for ſeveral hours.

When the limbs only are affected by cold, they ſhould be rubbed gently with ſnow, or bathed in cold water with ice in it, until their feeling and power of motion returns; after which, the bathing or rubbing with ſnow is to be repeated once every hour, and continued a longer or ſhorter time, as the pains are more or leſs violent.

The perſon thus affected ſhould be kept from the fire, for warmth and acrid applications of every kind are very injurious.

CHAP. LVI.

Cautions concerning Cold Bathing, and drinking the Mineral Waters.

AS it is now fashionable for persons of all ranks to plunge into the sea, and drink the mineral waters, I was desirous of rendering this work still more extensively useful, by the addition of some practical remarks on these active and useful remedies. Finding it impossible to bring these observations within so narrow a compass as not to swell the book, already too large, into an enormous size, I resolved to confine myself to a few hints or cautions; which may be of service to persons who bathe, or drink the mineral waters, without being able to put themselves under the care of a physician.

No part of the practice of medicine is of greater importance, or merits more the attention of the physician, as many lives are lost, and numbers ruin their health, by cold bathing, and an imprudent use of the mineral waters. On some future occasion may probably resume this subject, as I know not any work that contains a sufficient number of practical observations to regulate the patient's conduct in the use of these active and important remedies.

We have indeed many books on the mineral waters, and some of them are written with much ingenuity; but they are chiefly employed in ascertaining the contents of the waters by chymical analysis. This, no doubt, has its use, but it is by no means of such importance as some may imagine. A man may know the chymical analysis of all the

articles in the *materia medica*, without being able properly to apply any one of them in the cure of diſeaſes. One page of practical obſervations is worth a whole volume of chymical analyſis. But where are ſuch obſervations to be met with? Few phyſicians are in a ſituation to make them, and fewer ſtill are qualified for ſuch a taſk. It can only be accompliſhed by practitioners who reſide at the fountains, and who, poſſeſſing minds ſuperior to local prejudices, are capable of diſtinguiſhing diſeaſes with accuracy, and of forming a ſound judgment reſpecting the genuine effects of medicines.

Without a proper diſcrimination with regard to the diſeaſe and the conſtitution of the patient, the moſt powerful medicine is more likely to do harm than good. Every one knows that the ſame phyſician who, by cold bathing, cured Auguſtus, by an imprudent uſe of the ſame medicine, killed his heir. This induced the Roman ſenate to make laws for regulating the baths, and preventing the numerous evils which aroſe from an imprudent and promiſcuous uſe of thoſe elegant and faſhionable pieces of luxury. But as no ſuch laws exiſt in this country, *every one does that which is right in his own eyes*, and of courſe many muſt do wrong.

People are apt to imagine that the ſimple element of water can do no hurt, and that they may plunge into it at any time with impunity. In this, however, they are much miſtaken. I have known apoplexies occaſioned by going into the cold bath, fevers excited by ſtaying too long in it, and other maladies ſo much aggravated by its continued uſe, that they could never be wholly eradicated. Nor are examples wanting, either in ancient or modern times, of the baneful conſequences which have ariſen alſo from an injudicious application of the *warm* bath; but as warm baths are not ſo common in this country,

try, and are ſeldom uſed but under the direction of a phyſician, I ſhall not enlarge on that part of the ſubject.

Immerſion in cold water is a cuſtom which lays claim to the moſt remote antiquity: indeed it muſt have been coëval with man himſelf. The neceſſity of water for the purpoſe of cleanlineſs, and the pleaſure ariſing from its application to the body in hot countries, muſt very early have recommended it to the human ſpecies. Even the example of other animals was ſufficient to give the hint to man. By inſtinct many of them are led to apply cold water in this manner; and ſome, when deprived of its uſe, have been known to languiſh, and even die. But whether the practice of cold bathing aroſe from neceſſity, reaſoning, or imitation, is an inquiry of no importance; our buſineſs is to point ought the advantages which may be derived from it, and to guard people againſt an improper uſe of it.

The cold bath recommends itſelf in a variety of caſes, and is peculiarly beneficial to the inhabitants of populous cities, who indulge in idleneſs, and lead ſedentary lives. In perſons of this deſcription the action of the ſolids is always too weak, which induces a languid circulation, a crude indigeſted maſs of humors, and obſtructions in the capillary veſſels and glandular ſyſtem. Cold water, from its gravity as well as its tonic power, is well calculated either to obviate or remove theſe ſymptoms. It accelerates the motion of the blood, promotes the different ſecretions, and gives permanent vigour to the ſolids. But all theſe important purpoſes will be more eſſentially anſwered by the application of *ſalt water*. This ought not only to be preferred on account of its ſuperior gravity, but likewiſe for its greater power of ſtimulating the ſkin,

which promotes the perſpiration, and prevents the patient from catching cold.

It is neceſſary, however, to obſerve, that cold bathing is more likely to prevent, than to remove obſtructions of the glandular or lymphatic ſyſtem. In this caſe the cold bath will only aggravate the ſymptoms, and hurry the unhappy patient into an untimely grave. It is therefore of the utmoſt importance, previous to the patient's entering upon the uſe of the cold bath, to determine whether or not he labours under any obſtinate obſtructions of the lungs or other *viſcera*; and where this is the caſe, cold bathing ought ſtrictly to be prohibited *.

In what is called a plethoric ſtate, or too great a fulneſs of the body, it is likewiſe dangerous to uſe the cold bath, without due preparation. In this caſe there is great danger of burſting a blood-veſſel, or occaſioning an inflammation of the brain, or ſome of the *viſcera*. This precaution is the more neceſſary to citizens, as moſt of them live full, and are of a groſs habit. Yet, what is very remarkable, theſe people reſort in crowds every ſeaſon to the ſea-ſide, and plunge in the water without the leaſt conſideration. No doubt they often eſcape with impunity, but does this give a ſanction to the practice? Perſons of this deſcription ought by no means to bathe, unleſs the body has been previouſly prepared by ſuitable evacuations.

* The celebrated Dr. Smollet has indeed ſaid, that if he were perſuaded he had an ulcer in the lungs, he would jump into the cold bath: but here the doctor evidently ſhews more courage than diſcretion; and that he was more a man of wit than a phyſician, every own will allow. A nervous aſthma, or an atrophy, may be miſtaken for a pulmonary conſumption; yet, in the two former, the cold bath proves often beneficial, though I never knew it ſo in the latter. Indeed, all the phthiſical patients I ever ſaw, who had tried the cold bath, were evidently hurt by it.

Another

Another claſs of patients, who ſtand peculiarly in need of the bracing qualities of cold water, is the nervous. This includes a great number of the male, and almoſt all the female inhabitants of great cities. Yet even thoſe perſons ought to be cautious in uſing the cold bath. Nervous people have often weak bowels, and may, as well as others, be ſubject to congeſtions and obſtructions of the *viſcera;* and in this caſe they will not be able to bear the effects of the cold water. For them, therefore, and indeed for all delicate people, the beſt plan would be to accuſtom themſelves to it by the moſt pleaſing and gentle degrees. They ought to begin with the temperate bath, and gradually uſe it cooler, till at length the coldeſt proves quite agreeable. Nature revolts againſt all great tranſitions; and thoſe who do violence to her dictates, have often cauſe to repent of their temerity.

Wherever cold bathing is practiſed, there ought likewiſe to be tepid baths for the purpoſe mentioned above. Indeed it is the practice of ſome countries to throw cold water over the patient as ſoon as he comes out of the warm bath; but though this may not injure a Ruſſian peaſant, we dare not recommend it to the inhabitants of this country. The ancient Greeks and Romans, we are told, when covered with ſweat and duſt, uſed to plunge into rivers, without receiving the ſmalleſt injury. Though they might often eſcape danger from this imprudent conduct, yet it was certainly contrary to ſound reaſon. I have known many robuſt men throw away their lives by ſuch an attempt. We would not, however, adviſe patients to go into the cold water when the body is chilly; as much exerciſe, at leaſt, ought to be taken, as may excite a gentle glow all over the body, but by no means ſo as to overheat it.

To young people, and particularly to children, cold bathing is of the laſt importance. Their lax fibres render its tonic powers peculiarly proper. It promotes their growth, increaſes their ſtrength *, and prevents a variety of diſeaſes incident to childhood. Were infants early accuſtomed to the cold bath, it would ſeldom diſagree with them; and we ſhould ſee fewer inſtances of the ſcrophula, rickets, and other diſeaſes, which prove fatal to many, and make others miſerable for life. Sometimes indeed, theſe diſorders render infants incapable of bearing the ſhock of cold water; but this is owing to their not having been early and regularly accuſtomed to it. There is no practice equal to cold-bathing for fortifying the body againſt the heats of ſummer. It is however neceſſary here to caution young men againſt too frequent bathing; as I have known many fatal conſequences reſult from the daily practice of plunging into rivers, and continuing there too long. It is ſeldom that ſwimming can be regarded as a remedy. It is right for every boy to learn to ſwim; and it is a cleanly practice; but much miſchief is done by going into the water at improper times of the day, and ſtaying in too long.

The moſt proper time of the day for uſing the cold bath is, no doubt, the morning, or at leaſt before dinner; and the beſt mode, that of quick immerſion. As cold bathing has a conſtant tendency to propel the blood and other humors towards the head it ought to be a rule always to wet that part as ſoon as poſſible. By due attention to this circum-

* The celebrated Galen ſays, that immerſion in cold water is fit only for the young of lions and bears; and recommends warm bathing as conducive to the growth and ſtrength of infants. How egregiouſly do the greateſt men err whenever they loſe ſight of facts, and ſubſtitute reaſoning in phyſic in place of obſervation and experience!

ſtance,

ſtance, there is reaſon to believe, that violent head-achs, and other complaints, which frequently proceed from cold bathing, might be often prevented.

The cold bath, when too long continued in, not only occaſions an exceſſive flux of humors towards the head, but chills the blood, cramps the muſcles, relaxes the nerves, and wholly defeats the intention of bathing. Hence, by not adverting to this circumſtance, expert ſwimmers are often injured, and ſometimes even loſe their lives. All the beneficial purpoſes of cold bathing are anſwered by one, two, or three immerſions at a time; and the patient ought to be rubbed dry the moment he comes out of the water, and ſhould continue to take exerciſe for ſome time after. When the cold bathing is ſucceeded by a glow, it is uſeful. When this does not follow the patient ſhould be well rubbed, and put between blankets.

When cold bathing occaſions chillneſs, loſs of appetite, liſtleſſneſs, pain of the breaſt or bowels, a proſtration of ſtrength, or violent head-achs, it ought to be diſcontinued.

Though theſe hints are by no means intended to point out all the caſes where cold bathing may be hurtful, nor to illuſtrate its extenſive utility as a medicine; yet it is hoped they may ſerve to guard people againſt ſome of thoſe errors into which from mere inattention, they are apt to fall, and thereby not only to endanger their own lives, but bring an excellent medicine into diſrepute.

OF DRINKING THE MINERAL WATERS.

The internal uſe of water, as a medicine, is no leſs an object of the phyſician's attention than the external. Pure elementary water is indeed the moſt inoffenſive of all liquors, and conſtitutes a princi-

pal part of the food of every animal. But this element is often impregnated with ſubſtances of a very active and penetrating nature; and of ſuch an inſidious quality, that, while they promote certain ſecretions, and even alleviate ſome diſagreeable ſymptoms, they weaken the powers of life, undermine the conſtitution, and lay the foundation of worſe diſeaſes than thoſe which they were employed to remove. Of this every practitioner muſt have ſeen inſtances; and phyſicians of eminence have more than one declared that they have known more diſeaſes occaſioned than removed by the uſe of mineral waters. This doubtleſs has proceeded from the abuſe of theſe powerful medicines, which evinces the neceſſity of uſing them with caution.

By examining the contents of the mineral waters which are moſt uſed in this country, we ſhall be enabled to form an idea of the danger which may ariſe from an improper application of them either externally or internally, though it is to the latter of theſe that the preſent obſervations are chiefly confined.

The waters moſt in uſe for medical purpoſes in Britain, are thoſe impregnated with ſalts, ſulphur, iron, and mephitic air, either ſeparately, or variouſly combined. Of theſe the moſt powerful is the ſaline ſulphureous water of Harrowgate, of which I have had more occaſion to obſerve the pernicious conſequences, when improperly uſed, than of any other. To this, therefore, the following remarks will more immediately relate, though they will be found applicable to all the purging waters in the kingdom which are ſtrong enough to merit attention *.

* The greateſt claſs of mineral waters in this country is the chalybeate. In many parts of Britain theſe are to be found in almoſt every field; but thoſe chiefly in uſe, for medical purpoſes, are the purging chalybeates, as the waters of Scarborough, Cheltenham, Thorp Arch, Nevil Holt, &c. Of theſe which

The errors which ſo often defeat the intention of drinking the purgative mineral waters, and which ſo frequently prove injurious to the patient, proceed from the manner of uſing them, the quantity taken, the regimen purſued, or uſing them in caſes where they are not proper.

A very hurtful prejudice ſtill prevails in this country, that all diſeaſes muſt be cured by medicines taken into the ſtomach, and that the more violently theſe medicines operate, they are the more likely to have the deſired effect. This opinion has proved fatal to thouſands, and will, in all probality, deſtroy many more before it can be wholly eradicated. Purging is often uſeful in acute diſeaſes, and in chronical caſes may pave the way for the operation of other medicines; but it will ſeldom perform a cure; and by exhauſting the ſtrength of the patient, will often leave him in a worſe condition than it found him. That this is frequently the caſe with regard to the more active mineral waters, every perſon converſant in theſe matters will readily allow.

Strong ſtimulants applied to the ſtomach and bowels for a length of time, muſt tend to weaken and deſtroy their energy; and what ſtimulants are more active than ſalt and ſulphur, eſpecially when theſe ſubſtances are intimately combined, and carried through the ſyſtem by the penetrating medium of water? Thoſe bowels muſt be ſtrong indeed, which can withſtand the daily operation of ſuch active principles for months together, and not to be injured. This however is the plan purſued by moſt of thoſe

which do not purge, the waters of Tunbridge ſtand in the higheſt repute. The ſaline purging waters, as thoſe of Acton, Epſom, Kilburn, &c. are alſo in very general eſteem; but the fountains moſt frequented by the ſick in this country, are thoſe to which the minerals impart a certain degree of heat, as Bath, Briſtol, Buxton, &c.

who drink the purging mineral waters, and whoſe circumſtances will permit them to continue long enough at thoſe faſhionable places of reſort.

Many people imagine that every thing depends on the quantity of water taken, and that the more they drink they will the ſooner get well. This is an egregious error; for, while the unhappy patient thinks he is by this means eradicating his diſorder, he is often, in fact, undermining the powers of life, and ruining his conſtitution. Indeed nothing can do this ſo effectually as weakening the powers of digeſtion by the improper application of ſtrong ſtimulants. The very eſſence of health depends on the digeſtive organs performing their due functions, and the moſt tedious maladies are all connected with indigeſtion.

Drinking the water in too great quantity, not only injures the bowels and occaſions indigeſtion, but generally defeats the intention for which it is taken. The diſeaſes for the cure of which mineral waters are chiefly celebrated, are moſtly of the chronic kind; and it is well known that ſuch diſeaſes can only be cured by the ſlow operation of alteratives, or ſuch medicines as act by inducing a gradual change in the habit. This requires length of time, and never can be effected by medicines which run off by ſtool, and operate chiefly on the firſt paſſages.

Thoſe who wiſh for the cure of any obſtinate malady from the mineral waters, ought to take them in ſuch a manner as hardly to produce any effect whatever on the bowels. With this view a half-pint glaſs may be drank at bed-time*, and the ſame quantity an hour before breakfaſt, dinner, and ſupper. The doſe, however, muſt vary according to

* When I ſpeak of drinking a glaſs of the water over-night, I muſt beg leave to caution thoſe who follow this plan againſt eating heavy ſuppers.

circumſtances.

circumſtances. Even the quantity mentioned above will purge ſome perſons, while others will drink twice as much without being in the leaſt moved by it. Its operation on the bowels is the only ſtandard for uſing the water as an alterative. No more ought to be taken than barely to move the body; nor is it always neceſſary to carry it this length, provided the water goes off by the other emunctories, and does not occaſion a chillneſs, or flatulency in the ſtomach or bowels. When the water is intended to purge, the quantity mentioned above may be all taken before breakfaſt.

I would not only caution patients who drink the purging mineral waters over night to avoid heavy ſuppers, but alſo from eating heavy meals at any time. The ſtimulus of water impregnated with ſalts, ſeems to create a falſe appetite. I have ſeen a delicate perſon, after drinking the Harrowgate waters of a morning, eat a breakfaſt ſufficient to have ſerved two ploughmen, devour a plentiful dinner of fleſh and fiſh, and, to crown all, eat ſuch a ſupper as might have ſatisfied a hungry porter.

All this, indeed, the ſtomach ſeemed to crave; but this craving had better remain not quite ſatisfied, than that the ſtomach ſhould be loaded with what exceeds its powers. To ſtarve patients was never my plan; but I am clearly of opinion, that, in the uſe of all the purging mineral waters, a light and rather diluting diet is the moſt proper; and that no perſon, during ſuch a courſe, ought to eat to the full extent of what his appetite craves.

To promote the operation of mineral waters, and to carry them through the ſyſtem, exerciſe is indiſpenſably neceſſary. This may be taken in any manner that is moſt agreeable to the patient; but he ought never to carry it to exceſs. The beſt kinds of exerciſe are thoſe connected with amuſement. Every

thing that tends to exhilarate the ſpirits, not only promotes the operation of the waters, but acts as a medicine. All who reſort to the mineral waters ought therefore to leave every care behind, to mix with the company, and to make themſelves as cheerful and happy as poſſible. From this conduct, aſſiſted by the free and wholeſome air of thoſe faſhionable places of reſort, and alſo the regular and early hours which are uſually kept, the patient often receives more benefit than from uſing the waters.

But the greateſt errors in drinking the purging mineral waters ariſe from their being uſed in caſes where they are abſolutely improper, and adverſe to the nature of the diſeaſe. When people hear of a wonderful cure having been performed by ſome mineral water, they immediately conclude that it will cure every thing, and accordingly ſwallow it down, when they might as well take poiſon. Patients ought to be well informed, before they begin to drink the more active kinds of mineral waters, of the propriety of the courſe, and ſhould never perſiſt in uſing them when they are found to aggravate the diſorder.

In all caſes where purging is indicated, the ſaline mineral waters will be found to fulfil this intention better than any other medicine. Their operation, if taken in proper quantity, is generally mild; and they are neither found to irritate the nerves, nor debilitate the patient ſo much as the other purgatives.

As a purgative, theſe waters are chiefly recommended in diſeaſes of the firſt paſſages, accompanied with, or proceeding from, inactivity of the ſtomach and bowels, acidity, indigeſtion, vitiated bile, worms, putrid ſordes, the piles, and jaundice. In moſt caſes of this kind they are the beſt medicines that can be adminiſtered. But when uſed with this view, it is ſufficient to take them twice, or at moſt three times

a-week,

a-week, ſo as to move the body three or four times; and it will be proper to continue this courſe for ſome weeks.

But the operation of the more active mineral waters is not confined to the bowels. They often promote the diſcharge of urine, and not unfrequently increaſe the perſpiration. This ſhews that they are capable of penetrating into every part of the body, and of ſtimulating the whole ſyſtem. Hence ariſes their efficacy in removing the moſt obſtinate of all diſorders, *obſtructions of the glandular and lymphatic ſyſtem.* Under this claſs is comprehended the ſcrophula or *king's evil*, indolent tumors, obſtructions of the liver, ſpleen, kidneys, and meſenteric glands. When theſe great purpoſes are to be effected, the waters muſt be uſed in the gradual manner mentioned above, and perſiſted in for a length of time. It will be proper, however, now and then to diſcontinue their uſe for a few days.

The next great claſs of diſeaſes where mineral waters are found to be beneficial, are thoſe of the ſkin, as the itch, ſcab, tetters or ringworms, ſcaly eruptions, leproſies, blotches, foul ulcers, &c. Though theſe may ſeem ſuperficial, yet they are often the moſt obſtinate which the phyſician has to encounter, and not unfrequently ſet his ſkill at defiance: but they will ſometimes yield to the application of mineral waters for a ſufficient length of time, and in moſt caſes of this kind theſe waters deſerve a trial. The ſaline ſulphureous waters, ſuch as thoſe of Moffat in Scotland, and Harrowgate in England, are the moſt likely to ſucceed in diſeaſes of the ſkin; but for this purpoſe it will be neceſſary not only to drink the waters, but likewiſe to uſe them externally.

To enumerate more particularly the qualities of the different mineral waters, to ſpecify thoſe diſeaſes in which they are reſpectively indicated, and

to

to point out their proper modes of application, would be an uſeful, and by no means a diſagreeable employment; but as the limits preſcribed to theſe remarks will not allow me to treat the ſubject at more length, I ſhall conclude by obſerving, that whenever the mineral waters are found to exhauſt the ſtrength, depreſs the ſpirits, take away the appetite, excite fevers, diſtend the bowels, or occaſion a cough, they ought to be diſcontinued.

*** Theſe *Cautions* having been printed and ſold ſeparately for the accommodation of thoſe who had purchaſed the former editions of this book, has induced ſome perſons to conſider them as a Treatiſe on ſea-bathing and drinking the mineral waters; whereas the author's ſole intention was to furniſh a few general hints to perſons who frequent thoſe faſhionable places of reſort, without putting themſelves under the care of a phyſician. As he looks upon this ſubject, however, to be of the greateſt importance to the ſick, he pledges himſelf to treat it at more length on a future occaſion.

APPENDIX:

CONTAINING

A liſt of Simples and of ſuch Medicinal Preparations as ought to be kept in readineſs for private Practice:

The method of preparing and compounding ſuch Medicines as are recommended in the former Part of the Book, with the Addition of ſeveral others of a ſimilar Nature:

Remarks on the Doſes, Uſes, and Manner of applying the different Preparations.

INTRODUCTION.

IGNORANCE and ſuperſtition have attributed extraordinary medical virtues to almoſt every production of nature. That ſuch virtues were often imaginary, time and experience have ſufficiently ſhewn. Phyſicians, however, from a veneration for antiquity, ſtill retain in their liſts of medicine many things which owe their reputation entirely to the ſuperſtition and credulity of our anceſtors.

The inſtruments of medicine will always be multiplied, in proportion to men's ignorance of the nature and cauſe of diſeaſes; when theſe are ſufficiently underſtood, the method of cure will be ſimple and obvious.

Ignorance of the real nature and permanent properties of thoſe ſubſtances employed in the cure of diſeaſes, is another reaſon why they have been ſo greatly multiplied. Phyſicians thought they could effect by a number of ingredients, what could not be done by any one of them. Hence aroſe thoſe amazing farragos which have ſo long diſgraced the medical art, and which were eſteemed powerful in proportion to the number of ſimples that entered their compoſition.

The great variety of forms into which almoſt every article of medicine has been manufactured, affords another proof of the imperfection of the medical art. A drug which is perhaps moſt efficacious in the ſimpleſt form in which it can be adminiſtered, has been nevertheleſs ſerved up in ſo many different ſhapes, that one would be induced to think the whole art of phyſic lay in exhibiting medicine under as many different modes as poſſible.

Different forms of medicine, no doubt, have their uſe; but they ought never to be wantonly increaſed. They are by no means ſo neceſſary as is generally imagined. A few grains of powdered rhubarb, jalap, or ipecacuanha, will actually perform all that can be done by the different preparations of

theſe roots, and may alſo be exhibited in as ſafe and agreeable a manner. The ſame obſervation holds with regard to the Peruvian bark, and many other ſimples, of which the preparations are very numerous.

Multiplying the ingredients of a medicine, not only renders it more expenſive, but alſo leſs certain, both in its dofe and operation. Nor is this all. The compound, when kept, is apt to ſpoil, or acquire qualites of a different nature. When a medicine is rendered more ſafe, efficacious, or agreeable, by the addition of another, they ought, no doubt, to be joined; in all other caſes, they are better kept aſunder. The combination of medicines embarraſſes the phyſician, and retards the progreſs of medical knowledge. It is impoſſible to aſcertain the preciſe effect of any one medicine, as long as it is combined with others, either of a ſimilar or diſſimilar nature.

In the exhibition of medicine, regard ſhould not only be had to ſimplicity, but likewiſe to elegance. Patients ſeldom reap much benefit from things that are highly diſagreeable to their ſenſes. To taſte or ſmell like a drug, is become a proverb; and to ſay truth, there is too much ground for it. Indeed no art can take away the diſagreeable taſte and flavour of ſome drugs, without entirely deſtroying their efficacy; it is poſſible, however, to render many medicines leſs diſguſtful, and others even agreeable; an object highly deſerving the attention of all who adminiſter medicine.

The deſign of the following pages is, to exhibit ſuch a liſt of drugs and medicines as may be neceſſary for private practice. They are conſiderably more numerous indeed than thoſe recommended in the former part of the Book, but are ſtill greatly within the number contained in the moſt reformed diſpenſatories. The ſame medicine is ſeldom exhibited under different forms; and where different medicines anſwer nearly the ſame intention, there is commonly no more than one of them retained. Multiplying forms of medicine for the ſame intention tends rather to bewilder than aſſiſt the young practitioner, and the experienced phyſician can never be at a loſs to vary his preſcriptions as occaſion requires.

The chemical and other difficult preparations are for the moſt part omited. All of them that are uſed by any private practitioner are not worth preparing. He will buy them much

much cheaper than he can make them. Great care however is neceſſary to obtain them genuine. They are often adulterated, and ought never to be purchaſed unleſs from perſons of known veracity. Such of them as are in common uſe, are inſerted in the liſt of drugs and medicines. Their proper doſes and manner of application, are mentioned in the practical part of the Book, wherever they are preſcribed.

Such articles of medicine as are to be found in the houſe or garden of almoſt every peaſant, as barley, eggs, onions, &c. are likewiſe, for the moſt part, omitted. It is needleſs to ſwell a liſt of medicines with ſuch things as can be obtained whenever they are wanted, and which ſpoil by being kept.

The preparations made and ſold by diſtillers and confectioners are alſo generally left out. Theſe people, by operating upon a larger plan, generally make things better, while it is in their power to afford them much cheaper, than they can be prepared by any private hand.

The quantity ordered of every medicine is as ſmall as could well be prepared, both to prevent unneceſſary expence, and that the medicine might not ſpoil by keeping. Almoſt every medicine ſuffers by being kept, and ſhould be uſed as ſoon after it has been prepared as poſſible. Even ſimple drugs are apt to ſpoil, and ſhould therefore be laid in in ſmall quantities; they either rot, are conſumed by inſects, or evaporate ſo as to loſe their peculiar taſte or flavour, and often become quite inſignificant.

In the preparation of medicine, I have generally followed the moſt improved diſpenſatories; but have taken the liberty to differ from them wherever my own obſervations, or thoſe of other practical writers, on whoſe judgment I could depend, ſuggeſted an improvement.

In ſeveral compoſitions, the ingredient on which the efficacy of the medicine principally depends is increaſed, while the auxiliaries, which are generally ordered in ſuch trifling quantities as to be of no importance, are left out, or only ſuch of them retained as are neceſſary to give the medicine a proper conſiſtence, or the like.

The colouring ingredients are likewiſe for the moſt part omitted. They increaſe the bulk and price of the medicine, without adding any thing to its value. It would be well if they were never uſed at all. Medicines are often adulterated for the ſake of a colour. Acrid, and even poiſonous ſub-

ſtances are, for this purpoſe, ſometimes introduced into thoſe medicines which ought to be moſt bland and emollient. Ointment of elder, for example, is often mixed with verdegriſe to give it a fine green colour, which entirely fruſtrates the intention of that mild ointment. Thoſe who wiſh to obtain genuine medicines ſhould pay no regard to their colour.

Some regard is likewiſe paid to expence. Such ingredients as greatly increaſe the price of any compoſition, without adding conſiderably to its virtue, are generally either omitted, or ſomewhat leſs expenſive ſubſtituted in their place. Medicines are by no means powerful in proportion to their price. The cheapeſt are often the beſt; beſides, they are the leaſt apt to be adulterated, and are always moſt readily obtained.

With regard to the method of compounding medicines, I have generally followed that which ſeemed to be the moſt ſimple and natural, mentioning the different ſteps of the proceſs in the ſame order in which they ought to be taken, without paying an implicit regard to the method of other diſpenſatories.

For many of the remarks concerning the preparation, &c. of medicines, I have been obliged to the author of the New Diſpenſatory. The other obſervations are either ſuch as have occurred to myſelf in practice, or have been ſuggeſted in the courſe of reading, by authors whoſe names I am not able diſtinctly to recollect.

I have followed the alphabetical order, both with regard to the ſimples and preparations. A more ſcientific method would have been agreeable to ſome perſons, but leſs uſeful to the generality of readers. The different claſſes of medicine have no great dependence upon one another; and, where they have, it is hard to ſay which ſhould ſtand firſt or laſt; no doubt the ſimple preparations ought to precede the more compound. But all the advantages ariſing from this method of arrangement do not appear equal to that ſingle one, of being able, on the firſt opening of the book, to find out any article, which, by the alphabetical order, is rendered quite eaſy.

The doſe of every medicine is mentioned whenever it appeared neceſſary. When this is omitted, it is to be underſtood that the medicine may be uſed at diſcretion. *The doſe mentioned is always for an adult, unleſs when the contrary is expreſſed.*

preſſed. It is not an eaſy matter to proportion the doſes of medicine exactly to the different ages, conſtitutions, &c. of patients; but, happily for mankind, mathematical exactneſs here is by no means neceſſary.

Several attempts have been made to aſcertain the proportional doſes for the different ages and conſtitutions of patients; but, after all that can be ſaid upon this ſubject, a great deal muſt be left to the judgment and ſkill of the perſon who adminiſters the medicine. The following general proportions may be obſerved; but they are by no means intended for exact rules. A patient between twenty and fourteen may take two-thirds of the doſe ordered for an adult; from fourteen to nine, one half; from nine to ſix, one-third; from ſix to four, one-fourth; from four to two, one ſixth; from two to one, a tenth; and below one, a twelfth.

NB. The Apothecary's weights, and the Engliſh wine meaſures, are uſed throughout the whole book, the different denominations of which will appear from the following Table:

A pound contains twelve ounces.
An ounce - - eight drachms.
A drachm - - three ſcruples.
A ſcruple - - twenty grains.

A gallon contains eight pints.
A pint - - - ſixteen ounces.
An ounce - - eight drachms.

A table-ſpoonful is the meaſure of half an ounce.
A tea-ſpoonful is one-fourth of a table-ſpoonful.
Sixty drops make one tea-ſpoonful.

A LIST of SIMPLES, and of ſuch MEDICINAL PREPARTIONS, as ought to be kept in readineſs for private Practice.

AGARIC
Alum
Antimony, crude
Arſenic, white
Balſam of Capivi
——— of Peru
Bark, caſſia
—— cinnamon
—— Mezerion
—— Peruvian
Borax
Calamine ſtone, levigated
Caſtor, Ruſſian
Cauſtic, common
——— lunar
Chalk prepared
Earth, Japan
—— Armenian bole
Extracts of Gentian
——— of Hellebore, black
——— of hemlock
——— of liquorice
——— of Peruvian bark
Flowers of camomile
——— colt's foot
——— elder
——— red roſes
Fox-glove
Fruits, caſſia fiſtularis
—— Curaſſao oranges
—— figs, dried
—— French prunes
—— Jamaica pepper
—— juniper berries
—— nutmegs
—— tamarinds
Galls
Gums, aloes
—— ammoniac
Gums, arabic
—— aſaſœtida
—— camphor
—— galbanum
—— gamboge
—— guaiacum
—— kino
—— myrrh
—— opium
Herbs, leſſer centaury
——— peppermint
——— penny-royal
——— ſavin
——— trefoil
——— uva urſi
——— wormwood
Lead, Litharge
—— extract of
—— ſugar of
Lemon-peel
Mace
Magneſia alba
Manna
Mercury, crude
——— calcined
——— calomel
——— corroſive ſublimate
——— red precipitate
——— white ditto
Muſk
Oil, eſſential, of amber
——— of aniſe
——— of cinnamon
——— of lemon-peel
——— of peppermint
— expreſſed, of linſeed
Oil of olives, or Florence oil
caſtor oil
— of turpentine
Orange-peel

Reſins,

Reſins, benzoin
——— flowers of
——— Burgundy pitch
——— white, or roſin
——— ſcammony
Roots, calamus aromaticus
—— Carolina pink
—— colombo
—— garlic
—— gentian
—— ginger
—— hellebore, black, white
—— jalap
—— ipecacuanha
—— lily, white
—— liquorice
—— marſhmallow
—— mezerion
—— rhubarb
—— ſarſaparilla
—— ſeneka
—— ſquills
—— tormentil
—— Virginia ſnake
—— wild valerian
—— zedoary
Saffron
Sal ammoniac, crude
——— volatile
Salt, Epſom
—— of Glauber
—— nitre, purified
—— Rochelle
—— ſoda, phoſphorata
—— of tartar
Seeds, aniſe
—— caraway
—— cardamom
—— coriander
—— cummin
Seeds, muſtard
—— ſweet fennel
Senna
Spaniſh flies
Sperma ceti
Spirits, ætherial, or æther
——— of hartſhorn
——— of lavender, compound
——— of nitre
——— ditto dulcified
——— of ſal ammoniac
——— of ſea ſalt
——— of vinegar
——— of vitriol
——— of wine rectified
——— volatile aromatic
Steel, filings of
—— ruſt of, prepared
Sulphur
——— flowers of
Tar
—- Barbadoes
Tartar, cream of
——— emetic
——— ſoluble
——— vitriolated
Tin prepared
Tutty, levigated
Turpentine, Venice
Verdegriſe
Vitriol, green
——— blue
——— white
Wax, white
—— yellow
Woods, guaiacum
——— logwood
——— ſaſſafras
——— ſaunders, red
Zinc, flowers of

MEDICINAL PREPARATIONS.

BALSAMS.

THE ſubject of this ſection is not the natural balſams, but certain compoſitions, which, from their being ſuppoſed to poſſeſs balſamic qualities, generally go by that name.

This claſs of medicines was formerly very numerous, and held in great eſteem: modern practice, however, has juſtly reduced it to a very narrow compaſs.

Anodyne Balſam.

Take of white Spaniſh ſoap, one ounce; opium, unprepared, two drachms; brandy, nine ounces. Digeſt them together in a gentle heat for three days; then ſtrain off the liquor, and add to it three drachms of camphor.

This balſam, as its title expreſſes, is intended to eaſe pain. It is of ſervice in violent ſtrains and rheumatic complaints, when not attended with inflammation. It muſt be rubbed with a warm hand on the part affected; or a linen rag moiſtened with it may be applied to the part, and renewed every third or fourth hour, till the pain abates. If the opium is left out, this will be the *ſaponaceous balſam.*

BOLUSES.

AS boluſes are intended for immediate uſe, volatile ſalts and other ingredients improper for being kept, are admitted into their compoſition. They are generally compoſed of powders, with a proper quantity of ſyrup, conſerve, or mucilage. The lighter powders are commonly made up with ſyrup, and the more ponderous, as mercury, &c. with conſerve; but thoſe of the lighter kind would be more conveniently made up with mucilage, as it increaſes their bulk leſs than the other additions, and likewiſe occaſions the medicine to paſs down more eaſily.

Aſtringent Bolus.

Take of alum in powder, five grains; ſyrup, a ſufficient quantity to make a bolus.

In an exceſſive flow of the *menſes*, and other violent diſcharges of blood, proceeding from relaxation, this bolus may be given every four or five hours till the diſcharge abates.

Diaphoretic Bolus.

Take of gum guaiacum, in powder, ten grains; flowers of ſulphur and cream of tartar, of each one ſcruple, ſimple ſyrup, a ſufficient quantity.

In rheumatic complaints, and diſorders of the ſkin, this bolus may be taken twice a-day.

Mercurial Bolus.

Take of calomel, ſix grains; conſerve of roſes, half a drachm. Make a bolus.

Where mercury is neceſſary, this bolus may be taken twice or thrice a week. It may be taken over night; and if it does not operate, a few grains of jalap will be proper next day to carry it off.

Bolus of Rhubarb and Mercury.

Take of the beſt rhubarb, in powder, from a ſcruple to half a drachm; of calomel, from four to ſix grains; ſimple ſyrup, a ſufficient quantity to make a bolus.

This is a proper purge in hypochondriac conſtitutions; but its principal intention is to expel worms. Where a ſtronger purge is neceſſary, jalap may be uſed inſtead of the rhubarb.

Pectoral Bolus.

Take of ſperma ceti, a ſcruple; gum ammoniac, ten grains; ſalt of hartſhorn, ſix grains; ſimple ſyrup as much as will make them into a bolus.

This bolus is given in colds and coughs of long ſtanding, aſthmas, and beginning conſumptions of the lungs. It is generally proper to bleed the patient before he begins to uſe it.

Purging Bolus.

Take of jalap, in powder, a ſcruple; cream of tartar, two ſcruples. Let them be rubbed together, and formed into a bolus, with ſimple ſyrup.

Where a mild purge is wanted, this will anſwer the purpoſe very well. If a ſtronger doſe is neceſſary, the jalap may be increaſed to half a drachm or upwards.

Volatile Bolus.

Take of volatile ſal ammoniac, ſix grains; conſerve of roſes, enough to make it into a bolus. To be taken every two or three hours in low nervous fevers.

CATAPLASMS AND SINAPISMS.

CATAPLASMS poſſeſs few or no virtues ſuperior to a poultice, which may be ſo made as, in moſt caſes, to ſupply their place. They are chiefly intended either to act as diſcutients, or to promote ſuppuration.

Sinapiſms.

Sinapiſms are employed to recal the blood and ſpirits to a weak part, as in the palſy and atrophy. They are alſo of ſervice in deep ſeated pains, as the ſciatica, &c. When the gout ſeizes the head or the ſtomach, they are applied to the feet to bring the diſorder to theſe parts. They are likewiſe applied to the patient's ſoles in the low ſtate of fevers. They ſhould not be ſuffered to lie on, however, till they have raiſed bliſters, but till the parts become red, and will continue ſo when preſſed with the finger.

The ſinapiſm is only a poultice made with vinegar inſtead of milk, and rendered warm and ſtimulating by the addition of muſtard, horſe-radiſh, or garlic.

The common ſinapiſm is made by taking crumb of bread or flour, and flour of muſtard, of each equal quantities; ſtrong vinegar as much as is ſufficient, and mixing them ſo as to make a poultice.

CLYSTERS.

THIS claſs of medicines is of more importance than is generally imagined. Clyſters ſerve, not only to evacuate the contents of the belly, but alſo to convey very active medicines into the ſyſtem. Opium, for example, may be adminiſtered in this way when it will not ſit upon the ſtomach, and alſo in larger doſes than at any time it can be taken by the mouth. The Peruvian bark may likewiſe be with good effect, adminiſtered in form of clyſter to perſons who cannot take it by the mouth.

A ſimple

A ſimple clyſter can ſeldom do hurt, and there are many caſes where it may do much good. A clyſter even of warm water, by ſerving as a fomentation to the parts, may be of conſiderable ſervice in inflammations of the bladder, and the lower inteſtines, &c.

Some ſubſtances, as the ſmoke of tobacco, may be thrown into the bowels in this way, which cannot by any other means whatever. This may be eaſily effected by means of a pair of hand-bellows, with an apparatus fitted to them for that purpoſe.

Nor is the uſe of clyſters confined to medicines. Aliment may alſo be conveyed in this way. Perſons unable to ſwallow, have been, for a conſiderable time, ſupported by clyſters.

Emollient Clyſter.

Take of flaxſeed tea and new milk, each ſix ounces. Mix them.

If fifty or ſixty drops of laudanum be added to this, it will ſupply the place of the *Anodyne Clyſter*.

Laxative Clyſter.

Take of warm water, half a pint; ſweet oil or freſh butter, and brown ſugar, of each two ounces. Mix them.

If an ounce of Glauber's ſalt, or a table-ſpoonful of common ſalt, be added to this, it will be the *Purging Clyſter*.

Carminative Clyſter.

Take of camomile flowers, an ounce; aniſe-ſeeds, half an ounce. Boil in a pint and a half of water to one pint.

In hyſteric and hypochondriac complaints this may be adminiſtered inſtead of the *Fœtid Clyſter*, the ſmell of which is ſo diſagreeable to moſt patients.

Oily Clyſter.

To four ounces of the infuſion of camomile flowers, add an equal quantity of ſweet oil.

This clyſter is beneficial in bringing off the ſmall worms lodged in the lower parts of the alimentary canal. When given to children the quantity muſt be proportionably leſſened.

Starch Clyſter.

Take jelly of ſtarch, four ounces; linſeed oil, half an ounce. Liquify the jelly over a gentle fire, and then mix in the oil.

In the dyſentery or bloody flux, this clyſter may be adminiſtered after every looſe ſtool, to heal the ulcerated inteſtines and blunt the ſharpneſs of corroding humours. Forty or fifty drops of laudanum may be occaſionally added; in which caſe, it will generally ſupply the place of the *Aſtringent Clyſter*.

Turpentine Clyſter.

Take of common decoction, ten ounces; Venice turpentine, diſſolved with the yolk of an egg, half an ounce; ſweet oil, one ounce. Mix them.

This diuretic clyſter is proper in obſtructions of the urinary paſſages, and in colicky complaints, proceeding from gravel, or coſtiveneſs.

Vinegar Clyſter.

This clyſter is made by mixing three ounces of vinegar with five of water-gruel.

It anſwers all the purpoſes of a common clyſter, with the peculiar advantages of being proper either in inflammatory or putrid diſorders, eſpecially in the latter.

☞ We think it unneceſſary to give more examples of this claſs of medicines, as ingredients adapted to any particular intention may be occaſionally added to one or other of the above forms.

COLLYRIA, or EYE-WATERS.

EYE-WATERS have been multiplied without number, almoſt every perſon pretending to be poſſeſſed of ſome ſecret preparation for the cure of ſore eyes. I have examined many of them, and find that they are pretty much alike, the baſis of moſt of them being either alum, vitriol or lead. Their effects evidently are, to brace and reſtore the tone of the parts; hence they are principally of ſervice in ſlight inflammations; and in that relaxed ſtate of the parts which is induced by obſtinate ones.

Camphor is commonly added to theſe compoſitions; but as it ſeldom incorporates properly with the water, it can be of little uſe. Boles and other earthy ſubſtances, as they do not diſſolve in water, are likewiſe unfit for this purpoſe.

Collyrium

Collyrium of Alum.

Take of alum, half a drachm; agitate it well together with the white of one egg.

This is the Collyrium of Riverius. It is uſed in inflammation of the eyes, to allay heat, and reſtrain the flux of humors. It muſt be put in a fine linen bag, and applied to the eyes at bed-time.

Vitriolic Collyrium.

Take of white vitriol, half a drachm; roſe-water, ſix ounces. Diſſolve the vitriol in the water, and filter the liquor.

This, though ſimple, is perhaps equal in virtue to moſt of the celebrated collyria. It is an uſeful application in weak, watery, and inflamed eyes. Though the ſlighter inflammations will generally yield to it, yet in thoſe of a more obſtinate nature, the aſſiſtance of bleeding and bliſtering will often be neceſſary.

When a ſtrong aſtringent is judged proper, a double or triple quantity of the vitriol may be uſed. I have ſeen a ſolution of four times the ſtrength of the above uſed with manifeſt advantage.

Collyrium of Lead.

Take ſugar of lead, and crude ſal ammoniac, of each four grains. Diſſolve them in eight ounces of common water.

Forty or fifty drops of laudanum may be occaſionally added to this collyrium.

Thoſe who chooſe may ſubſtitute inſtead of this the collyrium of lead recommended by Goulard; which is made by putting twenty-five drops of his *Extract of Lead* to eight ounces of water, and adding a tea-ſpoonful of brandy.

Indeed, common water and brandy, without any other addition, will in many caſes anſwer very well as a collyrium. An ounce of the latter may be added to five or ſix ounces of the former; and the eyes, if weak, bathed with it night and morning.

CONFECTIONS.

CONFECTIONS containing above ſixty ingredients are ſtill to be found in ſome of the moſt reformed diſpenſatories. As moſt of their intentions, however, may be more certainly, and as effectually anſwered by a few glaſſes of wine or grains

of

of opium, we ſhall paſs over this claſs of medicines very ſlightly.

Japonic Confections.

Take of Japan earth, three ounces; tormentil root, nutmeg, olibanum, of each two ounces; opium diſſolved in a ſufficient quantity of Liſbon wine, a drachm and a half; ſimple ſyrup and conſerve of roſes, of each fourteen ounces. Mix and make them into an electuary.

This ſupplies the place of the Diaſcordium.

The doſe of this electuary is from a ſcruple to a drachm.

CONSERVES AND PRESERVES.

EVERY Apothecary's ſhop was formerly ſo full of theſe preparations, that it might have paſſed for a confectioner's warehouſe. They poſſeſs very few medicinal properties, and may rather be claſſed among ſweetmeats than medicines. They are ſometimes, however, of uſe, for reducing into boluſes or pills ſome of the more ponderous powders, as the preparations of iron, mercury, and tin.

Conſerves are compoſitions of freſh vegetables and ſugar, beaten together into an uniform maſs. In making theſe preparations, the leaves of vegetables muſt be freed from their ſtalks, the flowers from their cups, and the yellow part of orange peel taken off with a raſp. They are then to be pounded in a marble mortar, with a wooden peſtle, into a ſmooth maſs; after which, thrice their weight of fine ſugar is commonly added by degrees, and the beating continued till they are uniformly mixed; but the conſerve will be better if only twice its weight of ſugar be added.

Thoſe who prepare large quantities of conſerve generally reduce the vegetables to a pulp by the means of a mill, and afterwards beat them up with the ſugar.

Conſerve of Red Roſes.

Take a pound of red roſe buds, cleared of their heels; beat them well in a mortar, and, adding by degrees two pounds of double-refined ſugar, in powder, make a conſerve.

After the ſame manner are prepared the conſerves of orange peel, roſemary flowers, ſea wormwood, of the leaves of woodſorrel, &c.

The conſerve of roſes is one of the moſt agreeable and uſeful preparations belonging to this claſs. A drachm or two

of

of it, diſſolved in warm milk, is ordered to be given as a gentle reſtringent in weakneſs of the ſtomach, and likewiſe in phthiſical coughs, and ſpitting of blood. To have any conſiderable effects, however, it muſt be taken in larger quantities.

Conſerve of Sloes.

This may be made by boiling the ſloes gently in water, being careful to take them out before they burſt; afterwards expreſſing the juice, and beating it up with three times its weight of fine ſugar.

In relaxations of the *uvula* and glands of the throat, this makes an excellant gargle, and may be uſed at diſcretion.

Preſerves are made by ſteeping or boiling freſh vegetables firſt in water, and afterwards in ſyrup, or a ſolution of ſugar. The ſubject is either preſerved moiſt in the ſyrup, or taken out and dried, that the ſugar may candy upon it. The laſt is the moſt uſeful method.

Candied Orange-peel.

Soak Seville orange-peel in ſeveral waters, till it loſes its bitterneſs; then boil it in a ſolution of double-refined ſugar in water, till it becomes tender and tranſparent.

Candied lemon-peel is prepared in the ſame manner.

It is needleſs to add more of theſe preparations, as they belong rather to the art of the confectioner than that of the apothecary.

DECOCTIONS.

WATER readily extracts the gummy and ſaline parts of vegetables; and though its action is chiefly confined to theſe, yet the reſinous and oily being intimately blended with the gummy and ſaline, are in great part taken up along with them. Hence watery decoctions and infuſions of vegetables, conſtitute a large, and not unuſeful, claſs of medicines. Although moſt vegetables yield their virtues to water, as well by infuſion as decoction, yet the latter is often neceſſary, as it ſaves time, and does in a few minutes what the other would require hours, and ſometimes days, to effect.

The medicines of this claſs are all intended for immediate uſe.

Decoction of Althæa.

Take of the roots of marſh-mallows, moderately dried, three ounces; raiſins of the ſun, one ounce; water, three pints.

Boil

Boil the ingredients in the water till one-third of it is conſumed; afterwards ſtrain the decoction, and let it ſtand for ſome time to ſettle. If the roots be thoroughly dried, they muſt be boiled till one half the water be conſumed.

In coughs, and ſharp defluctions upon the lungs, this decoction may be uſed for ordinary drink.

The Common Decoction.

Take of camomile flowers, one ounce; elder flowers, and ſweet fennel ſeeds, of each half an ounce; water, two quarts. Boil them a little while, and then ſtrain the decoction.

A medicine equally good may be prepared by infuſing the ingredients for ſome hours in boiling water.

This decoction is chiefly intended as the baſis of clyſters, to which other ingredients may be occaſionally added. It will likewiſe ſerve as a common fomentation, ſpirit of wine or other things being added in ſuch quantity as the caſe may require.

Decoction of Logwood.

Boil three ounces of the ſhavings, or chips, of logwood, in four pints of water, till one half of the liquor is waſted. Two or three ounces of ſimple cinnamon-water may be added to this decoction.

In fluxes of the belly, where the ſtronger aſtringents are improper, a tea-cupful of this decoction may be taken with advantage three or four times a-day.

Decoction of the Bark.

Boil two ounces of the Peruvian bark, groſsly powdered, in a pint and a half of water to one pint; then ſtrain the decoction. If a tea-ſpoonful of the weak ſpirit of vitriol be added to this medicine, it will render it both more agreeable and efficacious.

Compound Decoction of the Bark.

Take of Peruvian bark and Virginian ſnake root, groſsly powdered, each three drachms. Boil them in a pint of water to one half.

This is a proper medicine towards the decline of malignant fevers, when the pulſe is low, the voice weak, and the head affected with ſtupor, but with little delirium.

The doſe is four table-ſpoonfuls every ſecond or third hour.

Decoction of Sarſaparilla.

Take of freſh ſarſaparil'a r ot, ſliced and br iſed, two ounces; ſhavings of guaiacum wood, one ounce. Boil over a ſlow fire, in three quarts of wate', to one; adding towards the end half an ounce of liquorice-ro t. Strain the decoction.

This may either be employed as an aſſiſtant to a courſe of mercurial alteratives, or taken after the mercury has been uſed for ſome time. It ſtrengthens the ſtomach and reſtores fleſh and vigour to habits emaciated by the venereal diſeaſe. It may alſo be taken in the rheumatiſm, and cutaneous diſorders proceeding from foulneſs of the blood and juices.

This decoction may be taken, from a pint and a half, to two quarts in the day.

The following decoction is ſaid to be ſimilar to that uſed by *Kennedy*, in the cure of the venereal diſeaſe, and may ſupply the place of Liſbon diet drink:

Take of ſarſaparilla, three ounces; liquorice and mezereon root, of each half an ounce; ſhavings of guaiacum and ſaſſafras wood, of each one ounce; crude antimony, powdered, an ounce and a half. Infuſe theſe ingredients in eight pints of boiling water for twenty-four hours, then boil them till one half of the water is conſumed; afterwards ſtrain the decoction.

This decoction may be uſed in the ſame manner as the preceding.

Decoction of Seneka.

Take of ſeneka rattle ſnake root, one ounce; water, a pint and a half. Boil to one pint, and ſtrain

This decoction is recommended in the pleuriſy, dropſy, rheumatiſm, and ſome obſtinate diſorders of the ſkin. The doſe is two ounces, three or four times a-day, or oftener, if the ſtomach will bear it.

White Decoction.

Take of the pureſt chalk, in powder, two ounces; gum arabic, half an ounce; water, three pints. Boil to one quart, and ſtrain the decoction.

This is a proper drink in acute diſeaſes, attended with, or inclining to, a looſeneſs, and where acidities abound in the ſtomach or bowels. It is peculiarly proper for children when afflicted with ſourneſs of the ſtomach, and for perſons who are ſubject to the heartburn. It may have two or three ounces of ſimple cinnamon-water added to it.

An ounce of powdered chalk, mixed with two pints of water, will occaſionally ſupply the place of this decoction, and alſo of the chalk julep.

DRAUGHTS.

THIS is a proper form for exhibiting ſuch medicines as are intended to operate immediately, and which do not need to be frequently repeated; as purges, vomits, and a few others, which are to be taken at one doſe. Where a medicine requires to be uſed for any length of time, it is better to make up a larger quantity of it at once, which ſaves both trouble and expence.

Anodyne Draught.

Take of liquid laudanum, twenty-five drops; mint-water, an ounce. Mix them with a little ſugar.

In exceſſive pain, where bleeding is not neceſſary, and in great reſtleſſneſs, this compoſing draught may be taken and repeated occaſionally.

Diuretic Draught.

Take of nitre, half a drachm; common water, an ounce.

This draught is of ſervice in an obſtruction or deficiency of urine.

Purging Draughts.

Take of manna, an ounce; ſoluble tartar, or Rochelle ſalt, from three to four drachms. Diſſolve in three ounces of boiling water; to which add peppermint-water, half an ounce.

As manna ſometimes will not ſit upon the ſtomach, an ounce or ten drachms of the bitter purging ſalts, diſſolved in four ounces of water, may be taken inſtead of the above.

To make Glauber or Epſom ſalts agreeable, we add cream of tartar or lime-juice, and ſweeten with ſugar.

Thoſe who cannot take ſalts, may uſe the following draught:

Take of jalap in powder, a ſcruple; common water, an ounce; mint water, ſix drachms. Rub the jalap with twice its weight of ſugar, and add to it the other ingredients.

Sweating Draught.

Take ſpirit of Mindererus, two ounces; liquid laudanum, antimonial wine, each twenty-five drops; mint-water, half an ounce. Make them into a draught.

In

In recent colds and rheumatic complaints, this draught is of service. To promote its effects, however, the patient ought to drink freely of warm water-gruel, or of some other weak diluting liquor.

Vomiting Draughts.

Take of ipecacuanha, in powder, a scruple; water, an ounce; sugar, a drachm. Mix them.

Persons who require a stronger vomit, may add to the above half a grain, or a grain, of emetic tartar.

Those who do not choose the powder, may take ten drachms of the ipecacuanha wine; or half an ounce of the wine, and an equal quantity of the syrup of squills.

ELECTUARIES.

Electuaries are generally composed of the lighter powders, mixed with syrup, honey, conserve, or mucilage, into such a consistence, that the powders may neither separate by keeping, nor the mass prove too stiff for swallowing. They receive chiefly the milder alterative medicines, and such as are not ungrateful to the palate.

Astringent electuaries, and such as have pulps of fruit in them, should be prepared only in small quantities; as astringent medicines lose their virtues by being kept in this form, and the pulps of fruits are apt to ferment.

For the extraction of pulps it will be necessary to boil unripe fruits, and ripe ones if they are dried, in a small quantity of water, till they become soft. The pulp is then to be pressed out through a strong hair sieve, or thin cloth, and afterwards boiled to a due consistence, in an earthen vessel, over a gentle fire, taking care to prevent the matter from burning by continually stirring it. The pulps of fruits that are both ripe and fresh, may be pressed out without any previous boiling.

Lenitive Electuary.

Take of senna, in fine powder, eight ounces; coriander seeds, also in powder, four ounces; pulp of tamarinds and of French prunes, each a pound. Mix the pulps and powders together, and with a sufficient quantity of simple syrup, reduce the whole into an electuary.

A tea-spoonful of this electuary, taken two or three times a-day, generally proves an agreeable laxative. It likewise serves as a convenient vehicle for exhibiting more active medicines, as jalap, scammony, and such like.

This may supply the place of the electuary of *Cassia*.

Electuary of the Bark.

Take of Peruvian bark, in powder, three ounces; caſcarilla, half an ounce; ſyrup of ginger, enough to make an electuary.

In the cure of obſtinate intermitting fevers, the bark is aſſiſted by the caſcarilla. In hectic habits, however, it will be better to leave out the caſcarilla, and put three drachms of crude ſal ammoniac in its ſtead.

Electuary for the Piles.

Take flowers of ſulphur, cream of tartar powdered, each one ounce; molaſſes a ſufficient quantity to form an electuary.

A tea-ſpoonful of this may be taken three or four times a-day.

Electuary for the Palſey.

Take of powdered muſtard-ſeed, and conſerve of roſes, each an ounce; ſyrup of ginger, enough to make an electuary.

A tea-ſpoonful of this may be taken three or four times a-day.

Electuary for the Rheumatiſm.

Take of conſerve of roſes, two ounces; gum guaiacum, in powder, an ounce; ſyrup of ginger, a ſufficient quantity to make an electuary.

In obſtinate rheumatiſms, which are not accompanied with a fever, a tea ſpoonful of this electuary may be taken twice a-day with conſiderable advantage.

EMULSIONS.

Emulsions, beſides their uſe as medicines, are alſo proper vehicles for certain ſubſtances, which could not otherwiſe be conveniently taken in a liquid form. Thus camphor, triturated with almonds readily unites with water into an emulſion. Pure oils, balſams, reſins, and other ſimilar ſubſtances, are likewiſe rendered miſcible with water by the intervention of mucilages.

Common Emulſion.

Take of ſweet almonds, an ounce; water, two pints.

Let the almonds be blanched, and beat up in a marble mortar; adding the water by little and little, ſo as to make an emulſion; afterwards let it be ſtrained.

Arabic

Arabic Emulſion.

This is made in the ſame manner as the above, adding to the almonds, while beating, two ounces and a half of the mucilage of gum arabic.

Where ſoft cooling medicines are neceſſary, theſe emulſions may be uſed as ordinary drink.

Camphorated Emulſion.

Take of camphor, half a drachm; ſweet almonds, half a dozen; white ſugar, half an ounce; mint water, eight ounces. Grind the camphor and almonds well together in a ſtone mortar, and add by degrees the mint-water; then ſtrain the liquor, and diſſolve in it the ſugar.

In fevers, and other diſorders which require the uſe of camphor, a table-ſpoonful of this emulſion may be taken every two or three hours.

Emulſion of Gum Ammoniac.

Take of gum ammoniac, two drachms; water, eight ounces. Grind the gum with the water poured upon it by little and little, till it be diſſolved.

This emulſion is uſed for attenuating tough, viſcid phlegm, and promoting expectoration. In obſtinate coughs, two ounces of the ſyrup of poppies may be added to it. The doſe is two table-ſpoonfuls three or four times a-day.

Oily Emulſion.

Take of ſoft water, ſix ounces; volatile ſpirit, two drachms; ſweet oil, an ounce; ſhake them well together, and add, of ſimple ſyrup, half an ounce.

In recent colds and coughs, this emulſion is generally of ſervice; but if the cough proves obſtinate, it will ſucceed better when made with the paregoric elixir, inſtead of the volatile ſpirit. A table-ſpoonful of it may be taken every two or three hours.

EXTRACTS.

EXTRACTS are prepared by boiling the ſubject in water, and evaporating the ſtrained decoction to a due conſiſtence. By this proceſs ſome of the more active parts of plants are freed from the uſeleſs, indiſſoluble earthy matter, which makes the larger ſhare of their bulk. Water, however, is not the only menſtrum uſed in the preparation of extracts; ſometimes it is joined

joined with ſpirits, and at other times rectified ſpirits alone is employed for that purpoſe.

Extracts are prepared from a variety of different drugs, as the bark, gentian, jalap, &c.; but as they require a troubleſome and tedious operation, it will be more convenient for a private practitioner to purchaſe what he needs of them from a profeſſed druggiſt than to prepare them himſelf. Such of them as are generally uſed are inſerted in our liſt of ſuch drugs and medicines as are to be kept for private practice.

FOMENTATIONS.

Fomentations are generally intended either to eaſe pain, by taking off tenſion and ſpaſm; or to brace and reſtore the tone and vigor of thoſe parts to which they are applied. The firſt of theſe intentions may generally be anſwered by warm water, and the ſecond by cold. Certain ſubſtances, however, are uſually added to water, with a view to heighten its effects, as anodynes, aromatics, aſtringents, &c. We ſhall therefore ſubjoin a few of the moſt uſeful medicated fomentations, that people may have it in their power to make uſe of them if they chooſe.

Anodyne Fomentation.

Take of white poppy heads, two ounces; elder-flowers, half an ounce; water, three pints. Boil till one pint is evaporated, and ſtrain out the liquor.

This fomentation, as its title expreſſes, is uſed for relieving acute pain.

Aromatic Fomentation.

Take of Jamaica pepper, half an ounce; red wine, a pint. Boil them a little, and then ſtrain the liquor.

This is intended, not only as a topical application for external complaints, but alſo for relieving the internal parts. Pains of the bowels, which accompany dyſenteries and diarrhœas, flatulent colics, uneaſineſs of the ſtomach, and retchings to vomit, are frequently abated by fomenting the abdomen and region of the ſtomach with the warm liquor.

Common Bitter Fomentation.

Take tops of wormwood and camomile flowers, dried, of each two ounces, water, two quarts. After a ſlight boiling, pour off the liquor.

Brandy

Brandy or ſpirit of wine may be added to this fomentation, in ſuch quantity as the particular circumſtances of the caſe ſhall require; but theſe are not always neceſſary.

Emollient Fomentation.

This is the ſame as the common decoction.

Strengthening Fomentation.

Take of oak bark, one ounce; alum, two drachms; water, three pints. Boil the water with the bark to the conſumption of one third; then ſtrain the remaining decoction, and diſſolve the alum in it.

This aſtringent liquor is employed as an external fomentation to weak parts; it may alſo be uſed internally.

GARGLES.

HOWEVER trifling this claſs of medicines may appear, they are by no means without their uſe. They ſeldom indeed cure diſeaſes, but they often alleviate very diſagreeable ſymptoms; as parchedneſs of the mouth, foulneſs of the tongue and fauces, &c. they are peculiarly uſeful in fevers and ſore throats. In the latter, a gargle will ſometimes remove the diſorder; and in the former, few things are more refreſhing or agreeable to the patient, than to have his mouth frequently waſhed with ſome ſoft detergent gargle.

One advantage of theſe medicines is, that they are eaſily prepared. A little barley-water or ſage tea and honey may be had any where; and if to theſe be added as much vinegar or alum as will give them an agreeable ſharpneſs, they will make a very uſeful gargle for ſoftening and cleanſing the mouth.

Gargles have the beſt effect when injected with a ſyringe.

Attenuating Gargle.

Take of water, ſix ounces; honey, one ounce; nitre, a drachm and a half. Mix them.

This cooling gargle may be uſed either in the inflammatory quinſey, or in fevers, for cleanſing the tongue and fauces.

Common Gargle.

Take of water, ſix ounces; ſugar, half an ounce; ſpirit of vitriol, a ſufficient quantity to give it an agreeable ſharpneſs. Mix them.

This

This gargle, beſides cleanſing the tongue and fauces, acts as a gentle repellent, and will ſometimes remove a ſlight quinſey. A very good gargle may be made by pouring boiling water on Sumach berries.

Detergent Gargle.

Take of the emollient gargle, a pint; tincture of myrrh, an ounce; honey, two ounces. Mix them.

When exulcerations require to be cleanſed, or the excretion of tough viſcid ſaliva promoted, this gargle will be of ſervice.

Emollient Gargle.

Take an ounce of marſhmallow roots, and two or three figs; boil them in a quart of water till near one half of it be conſumed; then ſtrain out the liquor.

If an ounce of honey, and half an ounce of ſpirit of ſal-ammoniac, be added to the above, it will then be a good *attenuating gargle.*

This gargle is beneficial in fevers, where the tongue and fauces are rough and parched, to ſoften theſe parts, and promote the diſcharge of ſaliva.

The learned and accurate Sir John Pringle obſerves, that in the inflammatory quinſey, or ſtrangulation of the fauces, little benefit ariſes from the common gargles; that ſuch as are of an acid nature do more harm than good, by contracting the emunctories of the ſaliva and mucus, and thickening thoſe humors; that a decoction of figs in milk and water has a contrary effect, eſpecially if ſome ſal-ammoniac be added; by which the ſaliva is made thinner, and the glands brought to ſecrete more freely; a circumſtance always conducive to the cure.

INFUSIONS.

VEGETABLES yield nearly the ſame properties to water by infuſion as by decoction; and though they may require a longer time to give out their virtues in this way, yet it has ſeveral advantages over the other; ſince boiling is found to diſſipate the finer parts of many bitter and aromatic ſubſtances, without more fully extracting their medicinal principles.

The author of the New Diſpenſatory obſerves, that even from thoſe vegetables which are weak in virtue, rich infuſions may be obtained, by returning the liquor upon freſh quantities of the ſubject, the water loading itſelf more and

more with the active parts; and that these loaded infusions are applicable to valuable purposes in medicine, as they contain in a small compass the finer, more subtile, and active principles of vegetables, in a form readily miscible with the fluids of the human body. A very good and expeditious mode of making infusions, is to reduce the substance to a fine powder, add the water gradually to it in a mortar, rubbing them well together. Then let it stand to settle; in a few hours it will be fit for use.

Bitter Infusion.

Take tops of centaury and camomile flowers, of each half an ounce; orange peel, carefully freed from the inner white part, two drachms. Cut them in small pieces, and infuse them in a quart of boiling water.

For indigestion, weakness of the stomach, or want of appetite, a tea-cupful of this infusion may be taken twice or thrice a-day.

Infusion of the Bark.

To an ounce of the bark, in powder, add one or two tablespoonfuls of brandy, and a pint of boiling water. Let them infuse for two or three days.

This is a good preparation of the bark for weak stomachs. In disorders where the corroborating virtues of that medicine are required, a tea-cupful of it may be taken two or three times a-day.

Infusion of Carduus.

Infuse an ounce of the dried leaves of carduus benedictus, or blessed thistle, in a pint of common water, for six hours, without heat; then filter the liquor through paper.

This light infusion may be given, with great benefit, in weakness of the stomach, where the common bitters do not agree. It may be flavoured at pleasure with cinnamon, or other aromatic materials.

Infusion of Flaxseed

Take of flaxseed, two spoonfuls; liquorice root, sliced, half an ounce; boiling water, three pints. Let them stand to infuse by the fire for some hours, and then strain off the liquor.

If an ounce of the leaves of colt's foot be added to these ingredients, it will then be the *pectoral infusion*. Both these are emollient mucilaginous liquors, and may be taken with

advantage as ordinary drink in difficulty of making water; and in coughs and other complaints of the breaſt.

Infuſion of Roſes.

Take of red roſes, dried, half an ounce; boiling water, a quart; vitriolic acid, commonly called oil of vitriol, half a drachm; loaf ſugar an ounce.

Infuſe the roſes in the water for four hours, in an unglazed earthen veſſel; afterwards pour in the acid, and having ſtrained the liquor, add to it the ſugar.

In an exceſſive flow of the *menſes*, vomiting of blood, and other hæmorrhages, a tea-cupful of this gently aſtringent infuſion may be taken every three or four hours. It likewiſe makes an exceeding good gargle.

As the quantity of roſes uſed here can have little or no effect, an equally valuable medicine may be prepared by mixing the acid and water without infuſion.

Infuſion of Tamarinds and Senna.

Take of tamarinds, one ounce; ſenna, and cryſtals of tartar, each two drachms. Let theſe ingredients be infuſed four or five hours in a pint of boiling water; afterwards let the liquor be ſtrained, and an ounce or two of the aromatic tincture added to it. Perſons who are eaſily purged may leave out either the tamarinds or the cryſtals of tartar.

This is an agreeable cooling purge. A tea-cupful may be given every half hour till it operates.

This ſupplies the place of the *decoction of tamarinds and ſenna.*

Infuſion for the Palſey.

Take of horſe-radiſh root ſhaved, muſtard ſeed bruiſed, each four ounces. Infuſe them in two quarts of boiling water, in a cloſe veſſel, for twenty-four hours.

In paralytic complaints, a tea-cupful of this warm ſtimulating medicine may be taken three or four times a-day. It excites the action of the ſolids, proves diuretic, and, if the patient be kept warm, promotes perſpiration.

If two or three ounces of the dried leaves of marſh-treſoil be uſed inſtead of the muſtard, it will make the *antiſcorbutic infuſion.*

JULEPS.

JULEPS.

THE baſis of juleps is generally common water, or ſome ſimple diſtilled water, with one-third or one fourth its quantity of diſtilled ſpirituous water, and as much ſugar or ſyrup as is ſufficient to render the mixture agreeable. This is ſharpened with vegetable or mineral acids, or impregnated with other medicines ſuitable to the intention.

Expectorating Julep.

Take of the emulſion of gum ammoniac, ſix ounces; ſyrup of ſquills, two ounces. Mix them.

In coughs, aſthmas, and obſtructions of the breaſt, two table-ſpoonfuls of this julep may be taken every three or four hours.

Mucilaginous Vitriolic Julep.

Take of powdered gum arabic, two ounces; water, eight ounces; elixir of vitriol and ſugar, each half an ounce. Mix them together. A table-ſpoonful may be taken for a doſe four or five times a-day, in catarrh and cough, with much expectoration.

Muſk Julep.

Rub half a drachm of muſk well together, with half an ounce of ſugar and gum arabic; and add to it, gradually, of ſimple cinnamon or peppermint-water, four ounces.

In the low ſtate of nervous fevers, hiccupping, gout in the ſtomach, convulſions, and other ſpaſmodic affections, two table-ſpoonfuls of this julep may be taken every two or three hours.

Saline Julep.

Diſſolve two drachms of ſalt of tartar in three ounces of freſh lemon-juice, ſtrained; when the effervеſcence is over, add, of mint-water, and common water, each two ounces.

This removes ſickneſs at the ſtomach, relieves vomiting, promotes perſpiration, and may be of ſome ſervice in fevers, eſpecially in thoſe of the inflammatory kind.

Vomiting Julep.

Diſſolve four grains of emetic tartar in eight ounces of water.

In the beginning of fevers, where there is no topical inflammation, this julep may be given in the doſe of one table-ſpoonful every quarter of an hour till it operates. Antimonial vomits ſerve not only to evacuate the contents of the ſtomach, but likewiſe to promote the different excretions. Hence they are found in fevers to have nearly the ſame effects as Dr. *James's Powder.*

MIXTURES.

A MIXTURE differs from a julep in this reſpect, that it receives into its compoſition not only ſalts, extracts, and other ſubſtances diſſoluble in water, but alſo earths, powders, and ſuch ſubſtances as cannot be diſſolved. A mixture is ſeldom either an elegant or agreeable medicine. It is nevertheleſs neceſſary. Many perſons can take a mixture, who are not able to ſwallow a bolus or an electuary: beſides, there are medicines which act better in this than in any other form.

Anodyne Mixture.

Take of liquid laudanum, thirty drops; water, one ounce; ſugar, half a drachm. Mix them together.

Aſtringent Mixture.

Take ſimple cinnamon-water and common water, of each three ounces; Japonic confection, half an ounce. Mix them.

In dyſenteries which are not of long ſtanding, after the neceſſary evacuations, a ſpoonful or two of this mixture may be taken every four hours, interpoſing every ſecond or third day a doſe of rhubarb.

Camphor Mixture.

Take of camphor reduced to a powder by rubbing with a few drops of brandy, one drachm; powdered myrrh, ten grains; rub them well together, and add gradually four ounces of water.

The doſe is a table-ſpoonful, to be repeated every two hours in caſes of delirium in fever, or violent colics.

Diuretic Mixture.

Take of mint-water, five ounces; vinegar of ſquills, ſix drachms; ſweet ſpirit of nitre, half an ounce. Mix them.

In obſtructions of the urinary paſſages, two ſpoonfuls of this mixture may be taken twice or thrice a-day

Guaiacum

Guaiacum Mixture.

Take of gum guaiacum, finely powdered, two drachms; gum arabic, loaf ſugar, powdered, each two drachms; powdered liquorice-ball, half a drachm. Mix them well together, and add gradually four ounces of water.

The doſe is a table ſpoonful two or three times a-day, in thoſe caſes of rhumatiſm where moſt inflammation prevails.

Laxative Abſorbent Mixture.

Rub one drachm of magneſia alba in a mortar with ten or twelve grains of the beſt Turkey rhubarb, and add to them three ounces of common water; ſimple mint-water, one ounce; ſugar, two drachms.

As moſt diſeaſes of infants are accompanied with acidities, this mixture may either be given with a view to correct theſe, or to open the body. A table-ſpoonful may be taken for a doſe, and repeated three times a-day. Where the pain is very ſevere, from twenty to thirty drops of laudanum may be added to the mixture. To a very young child, half a ſpoonful will be ſufficient.

When the mixture is intended to purge, the doſe may either be increaſed, or the quantity of rhubarb doubled.

This is one of the moſt generally uſeful medicines for children with which I am acquainted.

Paregoric Mixture.

Take of paregoric elixir, one ounce; antimonial wine, half an ounce; mucilage of gum arabic, liquorice-ball, each half an ounce; water, eight ounces. Mix them together.

The doſe is a table-ſpoonful, to be repeated every three or four hours if neceſſary, in caſes of catarrh and pleuriſy, where the cough is troubleſome.

Saline Mixture.

Diſſolve a drachm of the ſalt of tartar in four ounces of boiling water; and, when cold, drop into it ſpirit of vitriol till the effervescence ceaſes; then add, of peppermint-water, two ounces, ſimple ſyrup, one ounce.

Where freſh lemons cannot be had, this mixture may occaſionally ſupply the place of the ſaline julep.

Squill Mixture.

Take of ſimple cinnamon-water, five ounces; vinegar of ſquills, one ounce; ſyrup of marſhmallows, an ounce and a half. Mix them.

This

This mixture, by promoting expectoration, and the ſecretion of urine, proves ſerviceable in aſthmatic and dropſical habits. A table-ſpoonful of it may be taken frequently.

OINTMENTS, LINIMENTS, AND CERATES.

NOTWITHSTANDING the extravagant encomiums which have been beſtowed on different preparations of this kind, with regard to their efficacy in the cure of wounds, ſores, &c. it is beyond a doubt, that the moſt proper application to a freſh wound is dry lint. But though ointments do not heal wounds and ſores, yet they ſerve to defend them from the external air, and to retain ſuch ſubſtances as may be neceſſary for drying, deterging, deſtroying proud fleſh, and ſuch like. For theſe purpoſes, however, it will be ſufficient to inſert only a few of the moſt ſimple forms, as ingredients of a more active nature can occaſionally be added to them.

Yellow Baſilicum Ointment.

Take of yellow wax, four ounces; white reſin, ten ounces; melt them together over a gentle fire; then add, of hog's lard, prepared, one pound. Strain the ointment while warm.

This ointment is employed for cleanſing and healing wounds and ulcers.

Ointment of Calamine.

Take of olive oil, a pint and a half; white wax, and calamine ſtone, levigated, of each half a pound. Let the calamine ſtone, reduced into a fine powder, be rubbed with ſome part of the oil, and afterwards added to the reſt of the oil and wax, previouſly melted together, continually ſtirring them till quite cold.

This ointment, which is commonly known by the name of *Turner's Cerate*, is an exceeding good application in burns and excoriations from whatever cauſe.

Citrine Ointment.

Take of purified quickſilver, one ounce; ſpirit of nitre, two ounces; hog's lard, one pound. Diſſolve the quickſilver in the acid, in a gentle heat, and while it is warm, ſtir into it, gradually, the hog's lard which has been melted, and cooled ſo much as juſt to be growing thick.

Eye Ointment.

Take of hog's lard, prepared, four ounces; white wax, two drachms; tutty, prepared, one ounce; melt the wax with the

the lard over a gentle fire, and then ſprinkle in the tutty, continually ſtirring them till the ointment is cold.

This ointment will be more efficacious, and of a better conſiſtence, if two or three drachms of camphor be rubbed up with a little oil, and intimately mixed with it.

Another.

Take of camphor, and calamine ſtone, levigated, each ſix drachms; verdegriſe well prepared, two drachms; hog's lard, and mutton ſuet, prepared, of each two ounces. Rub the camphor well with the powder; afterwards mix in the lard and ſuet, continuing the triture till they be perfectly united.

This ointment has been long in eſteem for diſeaſes of the eyes. It ought, however, to be uſed with caution, when the eyes are much inflamed or very tender. It is indeed, as well as the preceding one, more proper to anoint the edges of the eye-lids with when they are ſore.

Iſſue Ointment.

Mix half an ounce of Spaniſh flies, finely powdered, in ſix ounces of yellow baſilicum ointment.

This ointment is chiefly intended for dreſſing bliſters, in order to keep them open during pleaſure.

Ointment of Lead.

Take of olive oil, half a pint; white wax, two ounces; ſugar of lead, three drachms. Let the ſugar of lead, reduced into a fine powder, be rubbed up with ſome part of the oil, and afterwards added to the other ingredients, previouſly melted together, continually ſtirring them till quite cold.

This cooling and gently aſtringent ointment may be uſed in all caſes where the intention is to dry and ſkin over the part, as in ſcalding, &c.

Goulara's Ointment or Cerate.

Take of yellow wax, four ounces; olive oil, one pound. Melt them together, and when cooling, gradually mix, by beating with a wooden ſpatula, four ounces of extract of lead diſſolved in half a pint of rain water.

This cerate is very uſeful for burns, or any kind of ulcers attended with much heat and pain.

Mercurial Ointment.

Take of quickſilver, two ounces; hog's lard, three ounces; mutton ſuet, one ounce. Rub the quickſilver with an ounce of the hog's lard in a warm mortar, till the globules be perfectly

fectly extinguiſhed; then rub it up with the reſt of the lard and ſuet, previouſly melted together.

The principal intention of this ointment is to convey mercury into the body by being rubbed upon the ſkin.

Aſtringent Ointment.

Take of hog's lard two ounces, powdered galls, three drahms; mix them together. This ointment is moſt uſed in the piles.

Ointment of Sulphur.

Take of hog's lard, prepared, four ounces; flowers of ſulphur, an ounce and a half; crude ſal ammoniac, two drachms; eſſence of lemon, ten or twelve drops. Make them into an ointment.

This ointment, rubbed upon the parts affected, will generally cure the itch. It is both the ſafeſt and beſt application for that purpoſe, and, when made in this way, has no diſagreeable ſmell.

White Ointment.

Take of olive oil, one pint, white wax and ſpermaceti, of each three ounces. Melt them with a gentle heat, and keep them conſtantly and briſkly ſtirring together, till quite cold.

If two drachms of camphor, previouſly rubbed with a ſmall quantity of oil, be added to the above, it will make the *White Camphorated Ointment.*

Liniment for Burns.

Take equal parts of Florence oil, or freſh drawn linſeed oil, and lime-water; ſhake them well together in a wide mouthed bottle, ſo as to form a liniment.

This is found to be a very proper application for recent ſcalds or burns. It may either be ſpread upon a cloth, or the parts affected may be anointed with it twice or thrice a-day.

White Liniment.

This is made in the ſame manner as the white ointment, two-thirds of the wax being left out.

This liniment may be applied in caſes of excoriation, where, on account of the largeneſs of the ſurface, the ointments with lead or calamine might be improper.

Liniment for the Piles.

Take of white ointment, two ounces; liquid laudanum, half an ounce. Mix theſe ingredients with the yolk of an egg, and work them well together.

Volatile Liniment.

Take of olive oil, an ounce; ſpirit of hartſhorn, half an ounce. Shake them together.

This liniment, made with equal parts of the ſpirit and oil, will be more efficacious, where the patient's ſkin is able to bear it.

Sir John Pringle obſerves, that in the inflammatory quinſey, a piece of flannel, moiſtened with this liniment, and applied to the throat, to be renewed every four or five hours, is one of the moſt effeacious remedies; and that it ſeldom fails, after bleeding, either to leſſen or carry off the complaint. The truth of this obſervation I have often experienced.

Camphorated Oil.

Rub an ounce of camphor, with two ounces of olive oil, in a mortar, till the camphor be entirely diſſolved.

This antiſpaſmodic liniment may be uſed in obſtinate rheumatiſms, and in ſome other caſes accompanied with extreme pain and tenſion of the parts.

PILLS.

MEDICINES which operate in a ſmall doſe, and whoſe diſagreeable taſte, or ſmell, makes it neceſſary that they ſhould be concealed from the palate, are moſt commodiouſly exhibited in this form. No medicine, however, that is intended to operate very quickly, ought to be made into pills, as they often lie for a conſiderable time on the ſtomach before they are diſſolved, ſo as to produce any effect.

As the ingredients which enter the compoſition of pills are generally ſo contrived, that one pill of an ordinary ſize may contain about five grains of the compound, in mentioning the doſe we ſhall only ſpecify the number of pills to be taken; as one, two, three, &c.

Compoſing Pill.

Take of purified opium, ten grains; Caſtile ſoap, half a drachm. Beat them together, and form the whole into twenty pills.

When a quieting draught will not ſit upon the ſtomach, one, two, or three of theſe pills may be taken, as occaſion requires.

Fœtid Pill.

Take of aſadœtida, an ounce; Caſtile ſoap, half an ounce; add as much water as is neceſſary to form it into pills.

In hyſteric complaints, four or five pills, of an ordinary ſize, may be taken twice or thrice a-day. They are likewiſe often of ſervice to perſons afflicted with the aſthma.

When it is neceſſary to keep the body open, a proper quantity of rhubarb, aloes, or jalap, may occaſionally be added to the above maſs.

Hemlock Pill.

Take any quantity of the extract of hemlock, and adding to it about a fifth part its weight of the powder of the dried leaves, form it into pills of the ordinary ſize.

The extract of hemlock may be taken from one grain to ſeveral drachms in the day. The beſt method, however, of uſing theſe pills, is to begin with one or two, and to increaſe the doſe, gradually, as far as the patient can bear them, without any remarkable degree of ſtupor or giddineſs.

Mercurial Pill.

Take of purified quickſilver and honey, each half an ounce. Rub them together in a mortar, till the globules of mercury are perfectly extinguiſhed; then add, of Caſtile ſoap, two drachms; powdered liquorice or crumb of bread, a ſufficient quantity to give the maſs a proper conſiſtence for pills.

When ſtronger mercurial pills are wanted, the quantity of quickſilver may be doubled.

The doſe of theſe pills is different, according to the intention with which they are given. As an alterant, two or three may be taken daily. To raiſe a ſalivation, four or five will be neceſſary.

Equal parts of the above pill and powdered rhubarb made into a maſs, with a ſufficient quantity of ſimple ſyrup, will make a *Mercurial purging Pill.*

Mercurial Sublimate Pill.

Diſſolve fifteen grains of the corroſive ſublimate of mercury in two drachms of the ſaturated ſolution of crude ſal ammoniac, and make it into a paſte, in a glaſs mortar, with a ſufficient quantity of the crumb of bread. This maſs muſt be formed into one hundred and twenty pills.

This pill, which is the moſt agreeable form of exhibiting the ſublimate, has been found efficacious, not only in curing the

the venereal diſeaſe, but alſo in killing and expelling *worms*, after other powerful medicines had failed*.

For the venereal diſeaſe, four of theſe pills may be taken twice a-day, as an alterant three, and for worms two.

Opium Pill.

Take of opium, Caſtile ſoap, each one ſcruple; beat them together in an iron mortar, and make them into twenty pills.

Plummer's Pill.

Take of calomel, or ſweet mercury, and precipitated ſulphur of antimony, each three drachms; extract of liquorice, two drachms. Rub the ſulphur and mercury well together; afterwards add the extract, and, with a ſufficient quantity of the mucilage of gum arabic, make them into pills.

This pill has been found a powerful, yet ſafe, alterative in obſtinate cutaneous diſorders; and has completed a cure after ſalivation had failed. In venereal caſes it has likewiſe produced excellent effects. Two or three pills of an ordinary ſize may be taken night and morning, the patient keeping moderately warm, and drinking after each doſe a draught of decoction of the woods, or of ſarſaparilla.

Calomel Pill.

Take of calomel, one drachm; powdered opium ſix grains; Caſtile ſoap, two ſcruples; add a ſufficient quantity of water to make ſixty pills. The doſe is one pill night and morning.

Purging Pills.

Take of ſocotorine aloes, and Caſtile ſoap, each two drachms; of ſimple ſyrup, a ſufficient quantity to make them into pills.

Four or five of theſe pills will generally prove a ſufficient purge. For keeping the body gently open, one may be taken night and morning. They are reckoned both deobſtruent and ſtomachic, and will be found to anſwer all the purpoſes of Dr. Anderſon's pill's, the principle ingredient of which is aloes.

Where aloetic purges are improper, the following pills may be uſed:

Take extract of jalap, and vitriolated tartar, of each two drachms; ſyrup of ginger, as much as will make them of a proper conſiſtence for pills.

Theſe pills may be taken in the ſame quantity as the above.

* See a paper on this ſubject in the Edinburgh Phyſical and Literary Eſſays, by the ingenious Dr. John Gardener.

Pill for the Jaundice.

Take of Caſtile ſoap, ſocotorine aloes, and rhubarb, of each one drachm. Make them into pills with a ſufficient quantity of ſyrup or mucilage.

Theſe pills, as their title expreſſes, are chiefly intended for the jaundice, which, with the aſſiſtance of proper diet, they will often cure. Five or ſix of them may be taken twice a day, more or leſs, as is neceſſary to keep the body open.

Stomachic Pill.

Take extract of gentian, two drachms: powdered rhubarb and vitriolated tartar, of each one drachm; oil of mint, thirty drops; ſimple ſyrup, a ſufficient quantity.

Three or four of theſe pills may be taken twice a-day, for invigorating the ſtomach, and keeping the body gently open.

Squill Pills.

Take powder of dried ſquills, a drachm and a half; gum ammoniac, and cardamom ſeeds, in powder, of each three drachms; ſimple ſyrup, a ſufficient quantity.

In dropſical and aſthmatic complaints, two or three of theſe pills may be taken twice a-day, or oftener, if the ſtomach will bear them.

Strengthening Pill.

Take ſoft extract of the bark, and ſalt of ſteel, each a drachm. Make into pills.

In diſorders ariſing from exceſſive debility, or relaxation of the ſolids, as the *chloroſis*, or green ſickneſs, two of theſe pills may be taken three times a-day.

Tar Pills.

Theſe are made by mixing a ſufficient quantity of powdered liquorice, or wheat flour, with common tar, ſo as to make it of a proper conſiſtence to be formed into pills. Three or four of which may be taken three times a day.

PLASTERS.

Plasters ought to be of a different conſiſtence, according to the purpoſes for which they are intended. Such as are to be applied to the breaſt or ſtomach ought to be ſoft and yielding; while thoſe deſigned for the limbs ſhould be firm and adheſive.

It has been ſuppoſed, that plaſters might be impregnated with the virtues of different vegetables, by boiling the recent vegetable with the oil employed for the compoſition of the plaſter;

plaſter; but this treatment does not communicate to the oils any valuable qualities.

The *calces* of lead boiled with oils unite with them into a plaſter of a proper conſiſtence, which make the baſis of ſeveral other plaſters. In boiling theſe compoſitions, a quantity of hot water muſt be added from time to time to prevent the plaſter from burning or growing black. This, however, ſhould be done with care, leſt it cauſe the matter to explode.

Common Plaſter.

Take of common olive oil, ſix pints; litharge reduced to a fine powder, two pounds and a half. Boil the litharge and oil together over a gentle fire, continually ſtirring them, and keeping always about half a gallon of water in the veſſel: after they have boiled about three hours, a little of the plaſter may be taken out and put into cold water, to try if it be of a proper conſiſtence: when that is the caſe, the whole may be ſuffered to cool, and the water well preſſed out of it with the hands.

This plaſter is generally applied in ſlight wounds and excoriations of the ſkin. It keeps the part ſoft and warm, and defends it from the air, which is all that is neceſſary in ſuch caſes. Its principal uſe, however, is to ſerve as a baſis for other plaſters.

Adheſive Plaſter.

Take of common plaſter, half a pound; of Burgundy pitch, a quarter of a pound. Melt them together.

This plaſter is principally uſed for keeping on other dreſſings.

Anodyne Plaſter.

Melt an ounce of adheſive plaſter, and, when it is cooling, mix with it a drachm of powdered opium, and the ſame quantity of camphor, previouſly rubbed up with a little oil.

This plaſter generally gives eaſe in acute pains, eſpecially of the nervous kind.

Bliſtering Plaſter.

Take of Venice turpentine, ſix ounces; yellow wax, two ounces; Spaniſh flies in fine powder, three ounces; powdered muſtard, one ounce. Melt the wax, and while it is warm, add to it the turpentine, taking care not to evaporate it by too much heat. After the turpentine and wax are ſufficiently incorporated, ſprinkle in the powders, continually ſtirring the maſs till it be cold.

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Though this plaſter is made in a variety of ways, one ſeldom meets with it of a proper conſiſtence. When compounded with oils and other greaſy ſubſtances, its effects are blunted, and it is apt to run; while pitch and reſin render it too hard and very inconvenient.

When the bliſtering plaſter is not at hand, its place may be ſupplied by mixing with any ſoft ointment a ſufficient quantity of powdered flies; or by forming them into a paſte with flour and vinegar, or what is ſtill better by firſt ſpreading yellow baſilicon ointment on leather, and then covering it entirely with Spaniſh flies, finely powdered.

Gum Plaſter.

Take of the common plaſter, four pounds; gum ammoniac and galbanum, ſtrained, of each half a pound. Melt them together, and add, of Venice turpentine, ſix ounces.

This plaſter is uſed as a digeſtive, and likewiſe for diſcuſſing indolent tumours.

Mercurial Plaſter.

Take of common plaſter, one pound; of gum ammoniac, ſtrained, half a pound. Melt them together, and, when cooling, add eight ounces of quickſilver, previouſly extinguiſhed by triture, with three ounces of hog's lard.

This plaſter is recommended in pains of the limbs ariſing from a venereal cauſe. Indurations of the glands, and other violent tumours, are likewiſe found ſometimes to yield to it.

Stomach Plaſter.

Take of gum plaſter, half a pound; camphorated oil, an ounce and a half; black pepper, or capſicum, where it can be had, one ounce. Melt the plaſter, and mix with it the oil; then ſprinkle in the pepper, previouſly reduced to a fine powder.

An ounce or two of this plaſter, ſpread upon ſoft leather, and applied to the region of the ſtomach, will be of ſervice in flatulencies ariſing from hyſteric and hypochondriac affections. A little of the expreſſed oil of mace, or a few drops of the eſſential oil of mint, may be rubbed upon it before it is applied.

This may ſupply the place of the *Antihyſteric Plaſter.*

Warm Plaſter.

Take of gum plaſter, one ounce; bliſtering plaſter, two drachms. Melt them together over a gentle fire.

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This plaſter is uſeful in the ſciatica and other fixed pains of the rheumatic kind: it ought, however, to be worn for ſome time, and to be renewed, at leaſt, once a-week. If this is found to blifter the part, which is ſometimes the caſe, it muſt be made with a ſmaller proportion of the bliſtering plaſter.

Wax Plaſter.

Take of yellow wax, one pound; white reſin, half a pound; mutton ſuet, three quarters of a pound. Melt them together.

This is generally uſed inſtead of the *Melilot Plaſter*. It is a proper application after bliſters, and in other caſes where a gentle digeſtive is neceſſary.

POWDERS.

THIS is one of the moſt ſimple forms in which medicine can be adminiſtered. Many medicinal ſubſtances, however, cannot be reduced into powder, and others are too diſagreeable to be taken in this form.

The lighter powders may be mixed in any agreeable thin liquor, as tea or water gruel. The heavier ones will require a more conſiſtent vehicle, as ſyrup, conſerve, jelly, or honey.

Gums, and other ſubſtances which are difficult to powder, ſhould be pounded along with the drier ones; but thoſe which are too dry, eſpecially aromatics, ought to be ſprinkled during their pulverization with a few drops of any proper water.

Aromatic powders are to be prepared only in ſmall quantities at a time, and kept in glaſs veſſels cloſely ſtopped. Indeed, no powders ought to be expoſed to the air or kept too long, otherwiſe their virtues will be in great meaſure deſtroyed.

Arſenic Powder.

Take of white arſenic powdered, five grains; Peruvian bark, powdered, one drachm and an half. Mix them well together. This is to be uſed externally to obſtinate ill conditioned ulcers, more eſpecially to cancerous ones.

Aſtringent Powder.

Take of alum and Japan earth, each two drachms. Pound them together, and divide the whole into ten or twelve doſes,

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In an immoderate flow of the *menſes*, and other hæmorrhages, one of theſe powders may be taken every hour, or every half-hour, if the diſcharge be violent.

Powder of Bole.

Take of Armenian bole, or French bole, two ounces; cinnamon, one ounce; tormentil root and gum arabic, of each ſix drachms; long pepper, one drachm. Let all theſe ingredients be reduced into a powder.

This warm, glutinous aſtringent powder, is given in fluxes, and other diſorders where medicines of that claſs are neceſſary, in the doſe of a ſcruple, or half a drachm.

If a drachm of opium be added, it will make the *Powder of Bole with Opium*, which is a medicine of conſiderable efficacy. It may be taken in the ſame quantity as the former, but not above twice or thrice a-day.

Carminative Powder.

Take of coriander-ſeed, half an ounce; ginger, one drachm; nutmegs, half a drachm; fine ſugar, a drachm and a half. Reduce them into powder for twelve doſes.

This powder is employed for expelling flatulencies ariſing from indigeſtion, particularly thoſe to which hyſteric and hypochondriac perſons are ſo liable. It may likewiſe be given in ſmall quantities to children in their food, when troubled with gripes.

Diuretic Powder.

Take of gum arabic, four ounces; purified nitre, one ounce. Pound them together, and divide the whole into twenty-four doſes.

During the firſt ſtage of the virulent gonorrhœa, one of theſe cooling powders may be taken three times a-day, with conſiderable advantage.

Aromatic Opening Powder.

Take of the beſt Turkey rhubarb, cinnamon, and fine ſugar, each two drachms. Let the ingredients be pounded, and afterwards mixed well together.

Where flatulency is accompanied with coſtiveneſs, a teaſpoonful of this powder may be taken once or twice a-day, according to circumſtances.

Mercurial Powder.

Take of magneſia alba, one ſcruple; calomel eight grains; powdered ipecacuanha, ſix grains. Make them into eight powders.

To take a powder every morning, in inoculation for the ſmall-pox, eruptions, and ſore eyes.

Nitrous Powders.

Take of nitre, one ſcruple; emetic tartar, one ſixth of a grain. Make a powder.

To be uſed in moſt feveriſh complaints.

Saline Laxative Powder.

Take of ſoluble tartar, and cream of tartar, each one drachm; purified nitre, half a drachm, Make them into a powder.

In fevers, and other inflammatory diſorders, where it is neceſſary to keep the body gently open, one of theſe cooling laxative powders may be taken in a little gruel, and repeated occaſionally.

Steel Powder.

Take filings of ſteel, and loaf ſugar, of each two ounces; ginger, two drachms. Pound them together.

In obſtructions of the *menſes*, and other caſes where ſteel is proper, a tea-ſpoonful of this powder may be taken twice a-day, and waſhed down with a little wine or water.

Sudorific Powder.

Take purified nitre and vitriolated tartar, of each half an ounce; opium and ipecacuanha, of each one drachm. Mix the ingredients, and reduce them to a fine powder.

This is generally known by the name of *Dover's Powder*. It is a powerful ſudorific. In obſtinate rheumatiſms, and other caſes where it is neceſſary to excite a copious ſweat, this powder may be adminiſtered in the doſe of a ſcruple or half a drachm. Some patients will require two ſcruples. It ought to be accompanied with the plentiful uſe of ſome warm diluting liquor.

Worm Powders.

Take of ſalt of ſteel reduced into a fine powder, half a drachm; prepared ſteel, two drachms. Mix them well together, and divide the whole into ſix doſes.

One of these powders may be taken in a little syrup, honey, or treacle, twice a-day. After they have been all used, the following anthelmintic purge may be proper.

Purging Worm-Powder.

Take of powdered rhubarb, a scruple; scammony and calomel, of each five grains. Rub them together in a mortar for one dose.

For children the above doses must be lessened according to their age.

Powder for the Tape-Worm.

Early in the morning the patient is to take in any liquid, two or three drachms, according to his age and constitution, of the root of the male fern reduced into a fine powder. About two hours afterwards, he is to take of calomel and resin of scammony, each ten grains, gum gamboge, six grains. These ingredients must be finely powdered and given in a little syrup, honey, treacle, or any thing that is most agreeable to the patient. He is then to walk gently about, now and then drinking a dish of weak green tea, till the worm is passed. If the powder of the fern produces nausea, or sickness, it may be removed by sucking the juice of an orange or lemon.

This medicine, which had been long kept a secret abroad for the cure of the tape worm, was some time ago purchased by the French King, and made public for the benefit of mankind. Not having had an opportunity of trying it, I can say nothing from experience concerning its efficacy. It seems, however, from its ingredients, to be an active medicine, and ought to be taken with care. The dose here prescribed is sufficient for the strongest patient; it must, therefore, be reduced according to the age and constitution.

SYRUPS.

SYRUPS were some time ago looked upon as medicines of considerable value. They are at present, however, regarded chiefly as vehicles for medicines of greater efficacy, and are used for sweetening draughts, juleps, or mixtures; and for reducing the lighter powders into boluses, pills, and electuaries. As all these purposes may be answered by the simple syrup alone, there is little occasion for any other; especially as they

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are ſeldom found but in a ſtate of fermentation; and as the doſe of any medicine given in this form is very uncertain. Perſons who ſerve the public muſt keep whatever their cuſtomers call for; but to the private practitioner nine-tenths of the ſyrups uſually kept in the ſhops are unneceſſary.

Simple Syrup.

Is made by diſſolving in water, either with or without heat, about double its weight of fine ſugar.

If twenty-five drops of laudanum be added to an ounce of the ſimple ſyrup, it will ſupply the place of diacodium, or the ſyrup of poppies, and will be found a more ſafe and certain medicine.

The lubricating virtues of the ſyrup of marſhmallows may likewiſe be ſupplied, by adding to the common ſyrup a ſufficient quantity of mucilage of gum arabic.

Thoſe who chooſe to preſerve the juice of lemons in form of ſyrup, may diſſolve in it, by the heat of a warm bath, nearly double its weight of fine ſugar. The juice ought to be previouſly ſtrained, and ſuffered to ſtand till it ſettles.

The ſyrup of ginger is ſometimes of uſe as a warm vehicle for giving medicines to perſons afflicted with flatulency. It may be uſed by infuſing two ounces of bruiſed ginger in two pints of boiling water for twenty-four hours. After the liquor has been ſtrained, and has ſtood to ſettle for ſome time, it may be poured off, and a little more than double its weight of fine powdered ſugar diſſolved in it.

TINCTURES, ELIXIRS, &c.

RECTIFIED ſpirit is the direct menſtrum of the reſins and eſſential oils of vegetables, and totally extracts theſe active principles from ſundry ſubſtances, which yield them to water, either not at all, or only in part.

It diſſolves likewiſe thoſe parts of animal ſubſtances in which their peculiar ſmells and taſtes reſide. Hence the tinctures prepared with rectified ſpirits form an uſeful and elegant claſs of medicines, poſſeſſing many of the moſt eſſential virtues of ſimples, without being clogged with their inert or uſeleſs parts.

Water, however, being the proper menſtruum of the gummy, ſaline, and ſaccharine parts of medicinal ſubſtances, it will be neceſſary, in the preparation of ſeveral tinctures, to

make uſe of weak ſpirit, or a compoſition of rectified ſpirit and water, and, of courſe, good brandy will be found ſufficiently ſtrong for every purpoſe.

Aromatic Tincture.

Infuſe two ounces of Jamaica pepper in two pints of brandy for a few days; then ſtrain off the tincture.

This ſimple tincture will ſufficiently anſwer all the intentions of the more coſtly preparations of this kind. It is rather too hot to be taken by itſelf; but it is very proper for mixing with ſuch medicines as might otherwiſe prove too cold for the ſtomach.

Tincture of the Bark.

Take of Peruvian bark, two ounces. Let the bark be groſsly powdered, and infuſed in a pint of brandy, for eight or ten days, in a cloſe veſſel; afterwards ſtrain off the tincture.

This tincture is not only beneficial in intermitting fevers, but alſo in the ſlow, nervous, and putrid kinds, eſpecially towards their decline.

The doſe is from one drachm to three or four, every fifth or ſixth hour. It may be given in any ſuitable liquor, and occaſionally ſharpened with a few drops of the ſpirit of vitriol.

Tincture of Cinnamon.

Take of cinnamon or caſſia bark groſsly powdered, two ounces; brandy, one pint. Digeſt for eight or ten days.

This is an elegant tincture, and very proper to mix with ſtomachic medicines.

Fœtid Tincture.

Infuſe two ounces of aſafœtida in one pint of brandy, for eight days, in a cloſe bottle, frequently ſhaking it; then ſtrain the tincture.

This medicine is beneficial in hyſteric diſorders, eſpecially when attended with lowneſs of ſpirits, and faintings. A teaſpoonful of it may be taken in a glaſs of water every two or three hours.

Tincture of Gum Guaiacum.

Take of gum guaiacum, two ounces; brandy, a pint. Infuſe in a veſſel well ſtopped, for eight or ten days; then ſtrain off the tincture.

In

In rheumatic complaints, two tea-ſpoonfuls of this tincture may be taken in a cup of water twice or thrice a-day. It may be made volatile, by adding four ounces of volatile ſpirit.

Tincture of Black Hellebore.

Infuſe two ounces of the roots of black hellebore, bruiſed, in a pint of brandy, for ſeven or eight days; then filter the tincture through paper. A ſcruple of cochineal may be infuſed along with the roots, to give the tincture a colour.

In obſtructions of the *menſes*, a tea-ſpoonful of this tincture may be taken in a cup of camomile or penny-royal tea twice a-day.

Aſtringent Tincture.

Digeſt two ounces of gum kino, in a pint and a half of brandy, for eight days; afterwards ſtrain it for uſe.

This tincture isa good aſtringent medicine. With this view two tea-ſpoonfuls, or more of it may be taken three or four times a-day.

Tincture of Myrrh and Aloes.

Take of gum myrrh, an ounce and a half; hepatic aloes, one ounce. Let them be reduced to a powder, and infuſed in two pints of brandy, for ſix days, in a gentle heat; and ſtrain the tincture.

This is principally uſed by ſurgeons for cleanſing foul ulcers, and reſtraining the progreſs of gangrenes. It is alſo, by ſome, though improperly, recommended as a proper application to freſh wounds.

Tincture of Opium, or Liquid Laudanum.

Take of crude opium, two ounces; brandy, a pint. Diſſolve the opium ſliced, in the brandy, with a gentle heat, frequently ſhaking it; and ſtrain off the tincture.

The common doſe may be from twenty to thirty drops.

Tincture of Aloes.

Take of ſocotorine aloes in powder, one ounce; Virginian ſnake-root and ginger, of each two drachms. Infuſe in a pint of brandy, for a week, frequently ſhaking the bottle, then ſtrain off the tincture.

This is a ſafe and uſeful purge for perſons of a languid and phelgmatic habit; but is thought to have better effects, taken in ſmall doſes as a laxative.

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The doſe, as a purge, is from two drachms to half an ounce.

Compound Tincture of Senna.

Take of ſenna, one ounce; jalap, coriander ſeeds, and cream of tartar, of each half an ounce. Infuſe them in a pint and a half of French brandy for a week; then ſtrain the tincture, and add to it four ounces of fine ſugar.

This is an agreeable purge, and anſwers all the purpoſes of the *Elixir ſalutis*, and of *Daffy's Elixir*.

The doſe is from one to two or three ounces.

Tincture of Spaniſh Flies.

Take of Spaniſh flies, reduced to a fine powder, two ounces; brandy, one pint. Infuſe for two or three days; then ſtrain off the tincture.

This is intended as an acrid ſtimulant for external uſe. Parts affected with the palſy or chronic rheumatiſm may be frequently rubbed with it.

Tincture of Rhubarb.

Take of rhubarb, two ounces and a half; leſſer cardamom ſeeds, half an ounce; brandy, two pints. Digeſt for a week, and ſtrain the tincture.

Thoſe who chuſe to have a vinous tincture of rhubarb, may infuſe the above ingredients in a bottle of Liſbon wine, adding to it about two ounces of brandy.

If half an ounce of gentian root, and a drachm of Virginian ſnake-root be added to the above ingredients, it will make the bitter tincture of rhubarb.

All theſe tinctures are deſigned as ſtomachics and corroborants as well as purgatives. In weakneſs of the ſtomach, indigeſtion, laxity of the inteſtines, fluxes, colicky and ſuch like complaints, they are frequently of great ſervice. The doſe is from half a table-ſpoonful to three or four table-ſpoonfuls or more, according to the circumſtances of the patient, and the purpoſes it is intended to anſwer.

Paregoric Elixir.

Take of flowers of benzoin, half an ounce; camphor and opium, each two drachms. Infuſe in one pint of brandy, for eight or ten days, frequently ſhaking the bottle; afterwards ſtrain the elixir.

This is an agreeable and ſafe way of adminiſtering opium. It eaſes pain, allays tickling coughs, relieves difficult breathing,

ing, and is uſeful in many diſorders of children, particularly the whooping cough.

The doſe to an adult is from fifty to an hundred drops.

Sacred Elixir.

Take of rhubarb cut ſmall, ten drachms; ſocotorine aloes, in powder, ſix drachms; leſſer cardamom ſeeds, half an ounce; French brandy, two pints. Infuſe for two or three days, and then ſtrain the elixir.

This uſeful ſtomachic purge may be taken from one ounce to an ounce and a half.

Stomachic Elixir.

Take of gentian root, two ounces; Curaſſao oranges, one ounce; Virginian ſnake-root, half an ounce. Let the ingredients be bruiſed, and infuſed for three or four days in two pints of French brandy; afterwards ſtrain out the elixir.

This is an elegant ſtomachic bitter. In flatulencies, indigeſtion, want of appetite, and ſuch like complaints, a ſmall glaſs of it may be taken twice a-day. It likewiſe relieves the gout in the ſtomach, when taken in a large doſe.

Acid Elixir of Vitriol.

Take of brandy, one pint; oil of vitriol, three ounces. Mix them gradually, and after the fæces have ſubſided, filter the elixir through paper, in a glaſs funnel.

This is one of the beſt medicines which I know of for hyſteric and hypochondriac patients, afflicted with flatulencies ariſing from relaxation or debility of the ſtomach and inteſtines. It will ſucceed where the moſt celebrated ſtomachic bitters have no effect. The doſe is from ten to forty drops, in a glaſs of water, ſweetened with a little ſugar ſo as to make it palatable, twice or thrice a-day. It ſhould be taken when the ſtomach is moſt empty.

Camphorated Spirit of Wine.

Diſſolve an ounce of camphor in a pint of ſpirits or brandy.

This ſolution is chiefly employed as an embrocation in bruiſes, palſies, the chronic rheumatiſm, and for preventing gangrenes.

The above quantity of camphor, diſſolved in half a pound of the volatile aromatic ſpirit, makes *Ward's Eſſence.*

Spirit of Mindererus.

Take of volatile ſal ammoniac, any quantity. Pour on it gradually ſtrong vinegar, till the effervescence ceaſes.

This

This medicine is useful in promoting a discharge both by the skin and urinary passages. It is also a good external application in strains and bruises.

When intended to raise a sweat, half an ounce of it in a cup of warm gruel, may be given to the patient in bed every hour till it has the desired effect.

VINEGARS.

VINEGAR is an acid produced from vinous liquors by a second fermentation. It is an useful medicine both in inflammatory and putrid disorders. Its effects are, to cool the blood, quench thirst, counteract a tendency to putrefaction, and allay inordinate motions of the system. It likewise promotes the natural secretions, and in some cases excites a copious sweat, where the warm medicines, called alexipharmic, tend rather to prevent that salutary evacuation.

Weakness, faintings, vomitings, and other hysteric affections, are often relieved by vinegar applied to the mouth and nose, or received into the stomach. It is of excellent use also in correcting many poisonous substances, when taken into the stomach; and in promoting their expulsion, by the different emunctories, when received into the blood.

Vinegar is not only an useful medicine, but serves likewise to extract, in tolerable perfection, the virtues of several other medicinal substances. Most of the odoriferous flowers impart to it their fragrance, together with a beautiful purplish or red colour. It also assists or coincides with the intention of squills, garlic, gum ammoniac, and several other valuable medicines.

These effects, however, are not to be expected from every thing that is sold under the name of vinegar, but from such as is sound and well prepared.

The best vinegars are those prepared from French wines.

It is necessary for some purposes that the vinegar be distilled; but as this operation requires a particular chemical apparatus, we shall not insert it.

Vinegar of Litharge.

Take of litharge, half a pound; strong vinegar, two pints. Infuse them together in a moderate heat for three days, frequently shaking the vessel; then filter the liquor for use.

This medicine is little used, from a general notion of its being dangerous. There is no doubt, however, that the preparations of lead with vinegar are possessed of valuable properties, and that they may be used in many cases with safety and success.

A preparation of a ſimilar nature with the above has of late been extolled by Goulard, a French ſurgeon, as a ſafe and extenſively uſeful medicine, which he calls the *Extract of Saturn*, and orders to be made in the following manner:

Take of litharge, one pound; ſtrong vinegar, two pints. Put them together into a glazed earthen pipkin, and let them boil, or rather ſimmer, for an hour, or an hour and a quarter, taking care to ſtir them all the while with a wooden ſpatula. After the whole has ſtood to ſettle, pour off the liquor which is upon the top into bottles for uſe.

With this extract Goulard makes his *vegeto-mineral water**, which he recommends in a great variety of external diſorders, as inflammations, burns, bruiſes, ſprains, ulcers, &c.

He likewiſe prepares with it a number of other forms of medicine, as poultices, plaſters, ointments, powders, &c.

Vinegar of Squills.

Take of dried ſquills, two ounces; diſtilled vinegar, two pints. Infuſe for ten days or a fortnight in a gentle degree of heat; afterwards ſtrain off the liquor, and add to it about a twelfth part of its quantity of proof ſpirits.

This medicine has good effects in diſorders of the breaſt, occaſioned by a load of viſcid phlegm. It is alſo of uſe in hydropic caſes for promoting a diſcharge of urine.

The doſe is from two drachms to two ounces, according to the intention for which it is given. When intended to act as a vomit, the doſe ought to be large. In other caſes, it muſt not only be exhibited in ſmall doſes, but alſo mixed with cinnamon-water, or ſome other agreeable aromatic liquor, to prevent the naufea it might otherwiſe occaſion.

WATERS BY INFUSION, &c.

Lime Water.

POUR two gallons of water gradually upon a pound of freſh burnt quicklime; and when the ebullition ceaſes, ſtir them well together; then ſuffer the whole to ſtand at reſt, that the lime may ſettle, and afterwards decant the liquor which is to be kept in veſſels cloſely ſtopt.

The lime-water from calcined oyſter-ſhells, is prepared in the ſame manner.

* See Collyrium of Lead.

Lime-water is principally uſed for the gravel; in which caſe, from a pint to two or more of it may be drank daily. Externally it is uſed for waſhing foul ulcers, and removing the itch, and other diſeaſes of the ſkin.

Sublimate Water, or Solution.

Diſſolve eight grains of the corroſive ſublimate, and half a drachm of crude ſal ammoniac, in a pint of water.

If a ſtronger ſolution is wanted, a double or triple quantity of ſublimate may be uſed.

The weaker ſolution is uſed in the doſe of a table ſpoonful, morning and evening in lues, for adults; and from twenty to thirty, or forty drops in a little water for children.

The ſtronger ſolution is uſed for a waſh in ſome obſtinate eruptions and ulcers.

Styptic Water.

Take of blue vitriol and alum, each an ounce and a half; water, one pint. Boil them until the ſalts are diſſolved, then filter the liquor, and add to it a drachm of the oil of vitriol.

This water is uſed for ſtopping a bleeding at the noſe, and other hæmorrhages; for which purpoſe cloths or doſſils dipt in it muſt be applied to the part.

Tar Water.

Pour a gallon of water on two pounds of tar, and ſtir them ſtrongly together with a wooden rod: after they have ſtood to ſettle for two days, pour off the water for uſe.

Though tar-water falls greatly ſhort of the character which has been given of it, yet it poſſeſſes ſome medicinal virtues. It ſenſibly raiſes the pulſe, increaſes the ſecretions, and ſometimes opens the body, or occaſions vomiting.

A pint of it may be drank daily, or more, if the ſtomach can bear it. It is generally ordered to be taken on an empty ſtomach, viz. four ounces morning and evening, and the ſame quantity about two hours after breakfaſt and dinner.

SIMPLE DISTILLED WATERS.

A GREAT number of diſtilled waters were formerly kept in the ſhops, and are ſtill retained in ſome Diſpenſatories. But we conſider them chiefly in the light of grateful diluents, ſuitable vehicles for medicines of greater efficacy, or for render-

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ing diſguſtful ones more agreeable to the palate and ſtomach. We ſhall therefore inſert only a few of thoſe which are beſt adapted to theſe intentions.

The management of a ſtill being now generally underſtood, it is needleſs to ſpend time in giving directions for that purpoſe.

All theſe waters may be imitated ſufficiently well by diſſolving the eſſential oils in a little rectified ſpirits; then adding a ſmall quantity of loaf ſugar, and a larger or ſmaller proportion of water, according to the ſtrength we wiſh the preparation to be.

Cinnamon Water.

Steep one pound of cinnamon bark, bruiſed, in a gallon and a half of water, and one pint of brandy, for two days; and then diſtil off one gallon.

This is an agreeable aromatic water, poſſeſſing in a high degree the fragrance and cordial virtues of the ſpice.

Pennyroyal Water.

Take of pennyroyal leaves, dried, a pound and a half; water, from a gallon and a half to two gallons. Draw off by diſtillation one gallon.

This water poſſeſſes, in a conſiderable degree, the ſmell, taſte, and virtues of the plant. It is given in mixtures and juleps to hyſteric patients.

An infuſion of the herb in boiling water anſwers nearly the ſame purpoſes.

Peppermint Water.

This is made in the ſame manner as the preceding.

Spearmint Water.

This may alſo be prepared in the ſame way as the pennyroyal water.

Both theſe are uſeful ſtomachic waters, and will ſometimes relieve vomiting, eſpecially when it proceeds from indigeſtion, or cold viſcid phlegm. They are likewiſe uſeful in ſome colicky complaints, the gout in the ſtomach, &c. particularly the peppermint water.

An infuſion of the freſh plant is frequently found to have the ſame effects as the diſtilled water.

Roſe Water.

Take of roſes freſh gathered, ſix pounds; water, two gallons. Diſtil off one gallon.

This water is principally valued on account of its fine flavour.

Jamaica Pepper Water.

Take of Jamaica pepper, half a pound; water, a gallon and a half. Diſtil off one gallon.

This is a very elegant diſtilled water, and may in moſt caſes ſupply the place of the more coſtly ſpice waters.

SPIRITUOUS DISTILLED WATERS.

Spirituous Cinnamon Water.

TAKE of cinnamon bark, one pound; proof ſpirit, and common water, of each one gallon. Steep the cinnamon in the liquor for two days; then diſtil off one gallon.

Spirituous Jamaica Pepper Water.

Take of Jamaica pepper, half a pound; proof ſpirit, three gallons; water two gallons. Diſtil off three gallons.

This is a ſufficiently agreeable cordial, and may ſupply the place of the *Aromatic Water*.

WHEYS.

Alum Whey.

BOIL two drachms of powdered alum in a pint of milk till it is crudled; then ſtrain out the whey.

This whey is beneficial in an immoderate flow of the *menſes*, and in a *diabetes*, or exceſſive diſcharge of urine.

The doſe is two, three, or four ounces, according as the ſtomach will bear it, three times a-day. If it ſhould occaſion vomiting, it may be diluted.

Muſtard Whey.

Take milk and water, of each a pint; bruiſed muſtard-ſeed, an ounce and a half. Boil them together till the curd is perfectly ſeparated; afterwards ſtrain the whey through a cloth.

This

This is the moſt elegant, and by no means the leaſt efficacious method of exhibiting muſtard. It warms and invigorates the habit, and promotes the different ſecretions. Hence, in a low ſtate of nervous fevers, it will often ſupply the place of wine. It is alſo of uſe in the chronic rheumatiſm, palſy, dropſy, &c. The addition of a little ſugar will render it more agreeable.

The doſe is an ordinary tea-cupful four or five times a-day.

Cream of Tartar Whey.

This is made by ſtirring two tea-ſpoonfuls of powdered Cream of Tartar into a pint of boiling milk, to be ſweetened to the taſte. It affords a cooling laxative drink in fevers.

Scorbutic Whey.

This whey is made by boiling half a pint of the ſcorbutic juices in a quart of cow's milk. More benefit, however, is to be expected from eating the plants, than from their expreſſed juices.

The ſcorbutic plants are, bitter oranges, brooklime, garden ſcurvy-graſs, and water creſſes.

A number of other wheys may be prepared nearly in the ſame manner, as orange whey, &c. Theſe are cooling pleaſant drinks in fevers, and may be rendered cordial, when neceſſary, by the addition of wine.

WINES.

THE effects of wine are to raiſe the pulſe, promote perſpiration, warm the habit, and exhilarate the ſpirits. The red wines, beſides theſe effects, have an aſtringent quality, by which they ſtrengthen the tone of the ſtomach and intestines, and by this means prove ſerviceable in reſtraining immoderate ſecretions.

The thin ſharp wines have a different tendency. They paſs off freely by the different emunctories, and gently open the body. The effects of the full bodied wines are, however, much more durable than thoſe of the thinner.

All ſweet wines contain a glutinous ſubſtance, and do not paſs off freely. Hence they will heat the body more than an equal quantity of any other wine, though it ſhould contain fully as much ſpirit.

From the obvious qualities of wine, it muſt appear to be an excellent cordial medicine. Indeed, to ſay the truth, it is worth all the reſt put together.

Wine

But to anſwer this character, it muſt be ſound and good. No benefit is to be expected from the common traſh that is often ſold by the name of wine, without poſſeſſing one drop of the juice of the grape. Perhaps no medicine is more rarely obtained genuine than wine.

Wine is not only uſed as a medicine, but is alſo employed as a *menſtruum* for extracting the virtues of other medicinal ſubſtances; for which it is not ill adapted, being a compound of water, inflammable ſpirit, and acid; by which means it is enabled to act upon vegetable and animal ſubſtances, and alſo to diſſolve ſome bodies of the metallic kind, ſo as to impregnate itſelf with their virtues, as ſteel, antimony, &c.

Antimonial Wine.

Take glaſs of antimony, reduced to a fine powder, half an ounce; Liſbon wine, ſixteen ounces. Digeſt, without heat, for three or four days, now and then ſhaking the bottle; afterwards filter the wine through paper.

The doſe of this wine varies according to the intention. As an alterative and diaphoretic, it may be taken from ten to fifty or ſixty drops. In a larger doſe it generally proves cathartic, or excites vomiting.

Bitter Wine.

Take of gentian root, yellow rind of lemon-peel, freſh, each one ounce; long pepper, two drachms; Liſbon or Sherry wine, two pints. Infuſe without heat for a week, and ſtrain out the wine for uſe.

In complaints ariſing from weakneſs of the ſtomach, or indigeſtion, a glaſs of this wine may be taken an hour before dinner and ſupper.

Ipecacuanha Wine.

Take of ipecacuanha, in powder, one ounce; Liſbon wine, a pint. Infuſe for three or four days; then filter the tincture.

This is a ſafe vomit, and anſwers extremely well for ſuch perſons as cannot ſwallow the powder, or whoſe ſtomachs are too irritable to bear it.

The doſe is from one ounce to an ounce and a half.

Chalybeate or Steel Wine.

Take of filings of iron, two ounces; cinnamon, two drachms; Liſbon wine, two pints. Infuſe for three or four weeks, frequently

quently ſhaking the bottle; then paſs the wine through a filter.

In obſtructions of the *menſes*, this preparation of iron may be taken, in the doſe of half a wine-glaſs twice or thrice a-day.

The medicine would probably be better if ſharpened with half an ounce of the cream of tartar, or a ſmall quantity of the vitriolic acid.

Stomach Wine.

Take of Peruvian bark, groſsly powdered, an ounce; cardamom ſeeds, and orange peel, bruiſed, of each two drachms. Infuſe in a bottle of Sherry or Liſbon wine for five or ſix days; then ſtrain off the wine.

This wine is not only of ſervice in debility of the ſtomach and inteſtines, but may alſo be taken as a preventative, by perſons liable to the intermittent fever, or who reſide in places where this diſeaſe prevails. It will be of uſe likewiſe to thoſe who recover ſlowly after fevers of any kind, as it aſſiſts digeſtion, and helps to reſtore the tone and vigour of the ſyſtem.

A glaſs of it may be taken two or three times a-day.

A

GLOSSARY.

ALTHOUGH terms of art have been ſedulouſly avoided in the compoſition of this treatiſe, it is impoſſible entirely to baniſh technical phraſes when writing on medicine, a ſcience that has been leſs generally attended to by mankind, and continues therefore to be more infected with the jargon of the ſchools, than perhaps any other. Several perſons have expreſſed their opinion that a Gloſſary would make this work more generally intelligible, the following conciſe explanation of the few terms of art that occur, has been added in compliance with their ſentiments, and to fulfil the original intention of this treatiſe, by rendering it intelligible and uſeful to all ranks and claſſes of mankind.

A.

Abdomen. The belly.

Abſorbents. Veſſels that convey the nouriſhment from the inteſtines, and the ſecreted fluids from the various cavities into the maſs of blood.

Acrimony. Corroſive ſharpneſs.

Acute. A diſeaſe, the ſymptoms of which are violent, and tend to a ſpeedy termination, is called acute.

Adult. Of mature age.

Adуſt. Dry, warm.

Antiſpaſmodic. Whatever tends to prevent or remove ſpaſm.

Aphthæ. Small whitiſh ulcers appearing in the mouth.

Aſtriction. A tightening or leſſening.

Atrabilarian. An epithet commonly applied to people of a certain temperament, marked by a dark complexion, black hair, ſpare habit, which the ancients ſuppoſed to ariſe from the *atra bilis*, or the black bile.

B.

Bile or Gall. A fluid which is ſecreted by the liver into the gall-bladder, and from thence paſſes into the inteſtines, in order to promote digeſtion.

C.

Cacochymia. An unhealthy ſtate of the body.
Caries. A rottenneſs of a bone.
Chyle. A milky fluid ſeparated from the aliment in the inteſtines, and conveyed by the abſorbents into the blood to ſupply the waſte of the animal body.
Chronic. A diſeaſe whoſe progreſs is ſlow, in oppoſition to acute.
Circulation. The motion of the blood, which is driven by the heart through the arteries, and returns by the veins.
Comatoſe. Sleepy.
Conglobate Gland. A ſimple gland.
Conglomerate. A compound gland.
Contagion. Infectious matter.
Cutis. The ſkin.
Cutaneous. Of or belonging to the ſkin.
Criſis. A certain period in the progreſs of a diſeaſe, from whence a decided alteration either for the better or the worſe takes place.
Critical. Deciſive or important.
Critical Days. The fourth, fifth, ſeventh, ninth, eleventh, thirteenth, fourteenth, ſeventeenth, and twenty-firſt, are by ſome authors denominated critical days, becauſe febrile complaints have been obſerved to take a deciſive change at theſe periods.

D.

Debility. Weakneſs.
Delirium. A temporary diſorder of the mental faculties.
Diaphragm. A membrane ſeparating the cavity of the cheſt from that of the belly.
Diuretic. A medicine that promotes the ſecretion of urine.
Draſtic. Is applied to ſuch purgative medicines as are violent or harſh in their operation.

E.

Empyema. A collection of purulent matter in the cavity of the breaſt.

Endemic. A diſeaſe peculiar to a certain diſtrict of country.
Epidemic. A diſeaſe generally infectious.
Exacerbation. The increaſe of any diſeaſe, or rather the coming on of the paroxyſm or fit, as in an intermittent.

F.

Fæces. Excrement.
Fœtid. Emitting an offenſive ſmell.
Fœtus The child before birth, or when born before the proper period, is thus termed.
Flatulent. Producing wind.
Fungus. Proud fleſh.

G.

Gangrene. Mortification.
Gummata, Ganglia. Venereal excreſcences.
Gymnaſtic. Exerciſe taken with a view to preſerve or reſtore health.—The ancient phyſicians reckoned this an important branch of medicine.

H.

Hectic Fever. A ſlow conſuming fever, generally attending a bad habit of body, or ſome incurable and deep rooted diſeaſe.
Hæmorrhoids. The piles.
Hæmorrhage. Diſcharge of blood.
Hypochondriaciſm. Low ſpirits.
Hypochondriac viſcera. The liver, ſpleen, &c. ſo termed from their ſituation in the hypochondriac or upper and lateral parts of the belly.

I.

Ichor. Thin bad matter.
Impoſthume. A collection of purulent matter.
Inflammation. A ſurcharge of blood, and an increaſed action of the veſſels, in any particular part of the body.

L.

Ligature. Bandage.
Lixivium. Ley.

M.

Meſentery. A double membrane which connects the inteſtines to the back bone.

Miliary

Miliary Eruption. Eruption of ſmall puſtules reſembling the ſeeds of millet.

Morbific. Cauſing diſeaſe, or diſeaſed.

Mucus. The matter diſcharged from the noſe, lungs, &c.

N.

Nervous. Irritable.

Nauſea. An inclination to vomit.

Nodes. Enlargements of the bones produced by the venereal diſeaſe.

P.

Pectoral. Medicines adapted to cure diſeaſes of the breaſt.

Pelvis. The bones ſituated at the lower part of the trunk; thus named from their reſembling in ſome meaſure a baſon.

Peritonæum. A membrane lining the cavity of the belly and covering the inteſtines.

Pericardium. Membrane containing the heart.

Perſpiration. The matter diſcharged from the pores of the ſkin in form of vapor or ſweat.

Phlogiſton. Is here uſed to ſignify ſomewhat rendering the air unfit for the purpoſes of reſpiration.

Phelgmatic. Watery, relaxed.

Plethoric. Replete with blood.

Polypus. A diſeaſed excreſcence, or a ſubſtance formed of coagulable lymph, frequently found in the large blood veſſels.

Pus. Matter contained in a boil.

R.

Regimen. Regulation of diet.

Rectum. The ſtraight gut, in which the fæces are contained.

Reſpiration. The act of breathing.

S.

Saliva. The fluid ſecreted by the glands of the mouth.

Sanies. A thin bad matter, diſcharged from an ill conditioned ſore.

Schirrous. A ſtate of diſeaſed hardneſs.

Slough. A part ſeparated and thrown off by ſuppuration.

Spaſm. A diſeaſed contraction.

Spine. The back bone.

Styptic. A medicine for ſtopping the diſcharge of blood.

Syncope. A fainting fit attended with a complete abolition of ſenſation and thought.

T.

Tabes. A ſpecies of conſumption.

Temperament. A peculiar habit of body, of which there are generally reckoned four, viz. the ſanguine, the bilious, the melancholic, and the phlegmatic.

U.

Vertigo. Giddineſs.

Ulcer. An ill conditioned ſore.

Ureters. Two long and ſmall canals which convey the urine from the kidneys to the bladder.

Urethra. The canal which conveys the urine from the bladder out of the body.

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